

BOSTON
PUBLIC
LIBRARY



GOVDOC

BRA

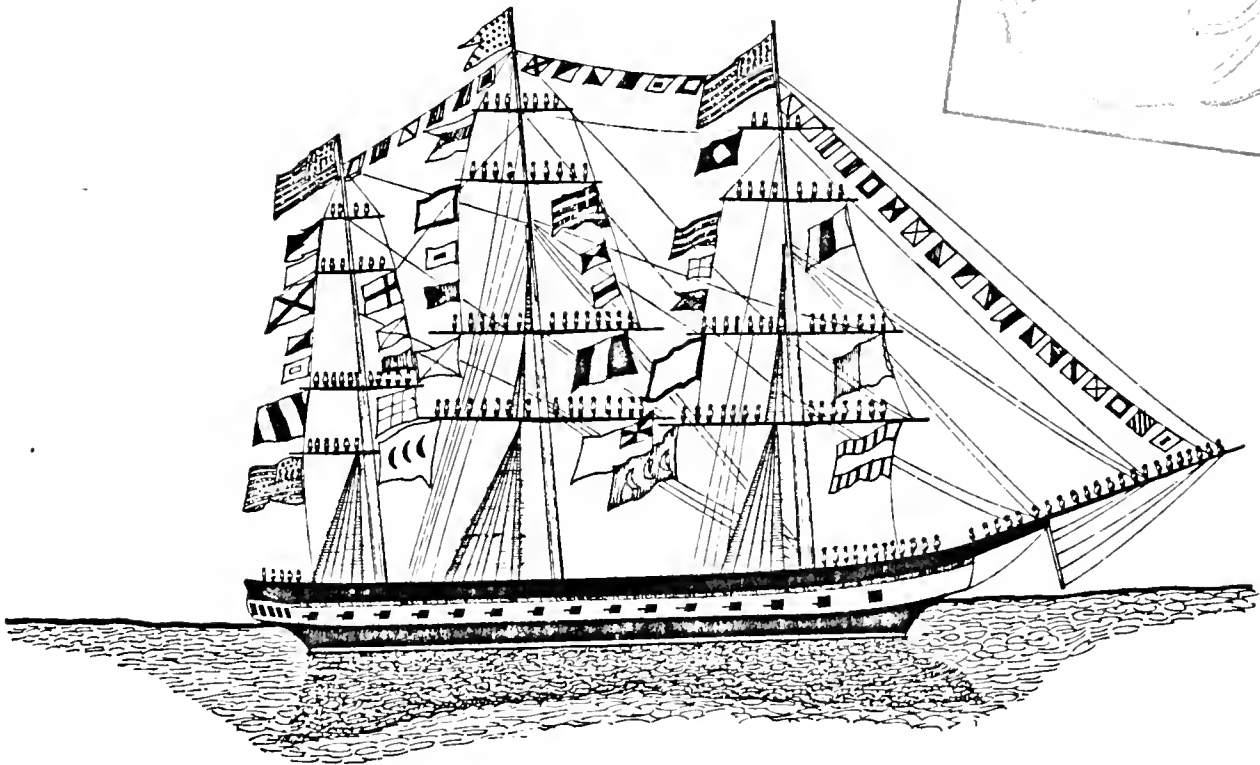
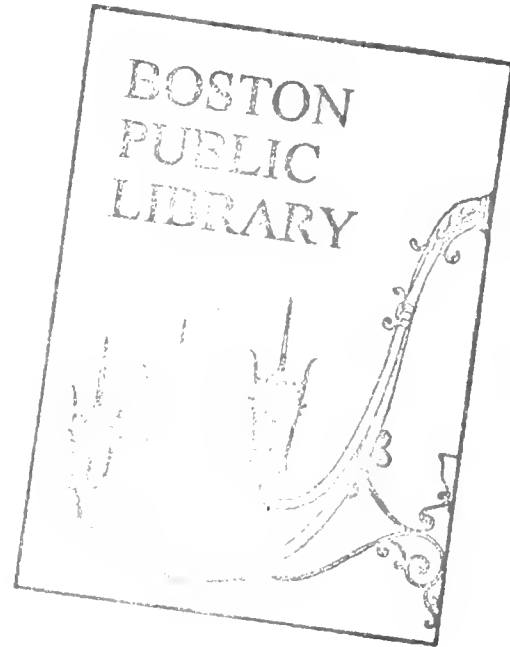
562

Constitution Office Park

Charlestown, MA

BOSTON REDEVELOPMENT AUTHORITY
Library

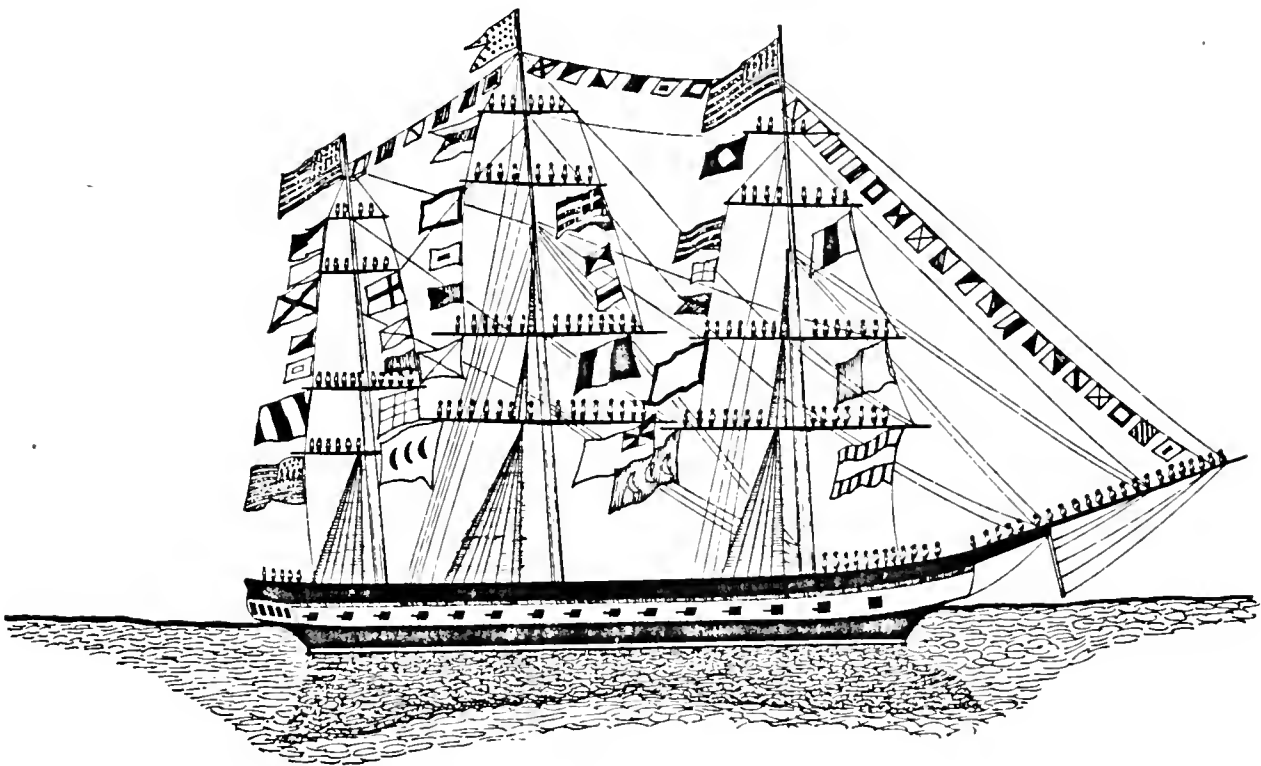
Office Rehabilitation Development Proposal



Developers: Constitution Office Park Associates
Architects: Priestley/Sterling Incorporated
Date: 30 September 1982

Constitution Office Park
Charlestown, MA

*Office Rehabilitation
Development Proposal*



Developers: Constitution Office Park Associates
Architects: Priestley/Sterling Incorporated
Date: 30 September 1982

Table of Contents

I.	LETTER OF INTEREST	1
II.	DEVELOPMENT TEAM	
	A. Organization Diagram	2
	B. Curriculum Vitae	3
	C. Completed Developments	4
	D. Lenders on Past Projects	5
	E. Photos of Russia Wharf and Tenants	6
III.	SITE CONSIDERATIONS	
	A. Site Diagrams	9
	1. Major Routes through Boston	10
	2. Pedestrian Travel Time	11
	3. Shuttle Bus and Ferry	12
	4. Charlestown/North End Neighborhoods	13
	5. Constitution Office Park Area	14
	6. Site Plan	15
	B. Artist Renderings	16
	1. Exterior	
	2. Atrium	
	3. Typical Office Space	
	4. View from Corner Office	
IV.	BUILDING USES	
	A. Planned Uses	21
	1. Square Footage Summary	22
	2. Building Use Plan	23
	B. Scope of Renovation	
	1. Plans	24
	2. Section and Elevations	26
	C. Project Schedule	28
V.	PARKING	
	A. Market Demand	29
	B. Garage Operation	29
	C. Parking Summary	30
VI.	PROFORMA SCHEDULE	
	A. Garage Proforma	31
	B. Office Proforma	35
	C. Developer's Statement	41
VII.	TENANT CONSIDERATIONS	
	A. Square Footage	42
	B. Typical Building Specifications	43
VIII.	Appendix A - Construction Cost	
	A. Office	44
	B. Garage	54
IX.	Appendix B - Building Specifications	62
X.	Appendix C - Master File Brochure	81
XI.	Appendix D - Market Overview	103

Letter of Interest

Constitution Office Park Associates

September 30, 1982

Mr. Robert Ryan
Boston Redevelopment Authority
City Hall
Boston, MA

Subject: Buildings 149 and 199
Charlestown Navy Yard

Gentlemen:

Submitted herewith are:

1. Certified Check in the amount of \$1,000.00.
2. Completed statement of development proposal, including proposed use, estimated cost and financial program.
3. Materials on architect's qualifications in Appendix C.
4. Design drawings and outline specifications and estimated restoration cost.

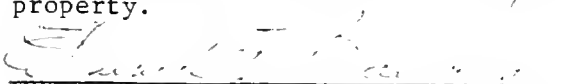
We are interested in rehabilitating the above-mentioned property. The architect we have retained for this development is

William A. Sterling, A.I.A.
(Architect's Name)

Priestley/Sterling, Incorporated 286 Congress St., Boston, MA
(Name of Firm) (Address)

We understand that the \$1,000.00 deposit is to be retained by you as a negotiation fee, but that it will be refunded to us (1) upon our written notice to you that we are no longer interested in the Parcel, at any time up until ten days after such date as we are informed by you that the deposit is no longer refundable; or, (2) at such time as the Authority has accepted a Letter of Intent and \$5,000.00 deposit by another developer or by us for the same parcel.

We understand that the Authority is under no obligation to earn interest on the deposit, but that any interest actually earned will be our property.


Constitution Office Park Associates
Edward F. Barry, Jr., Esquire

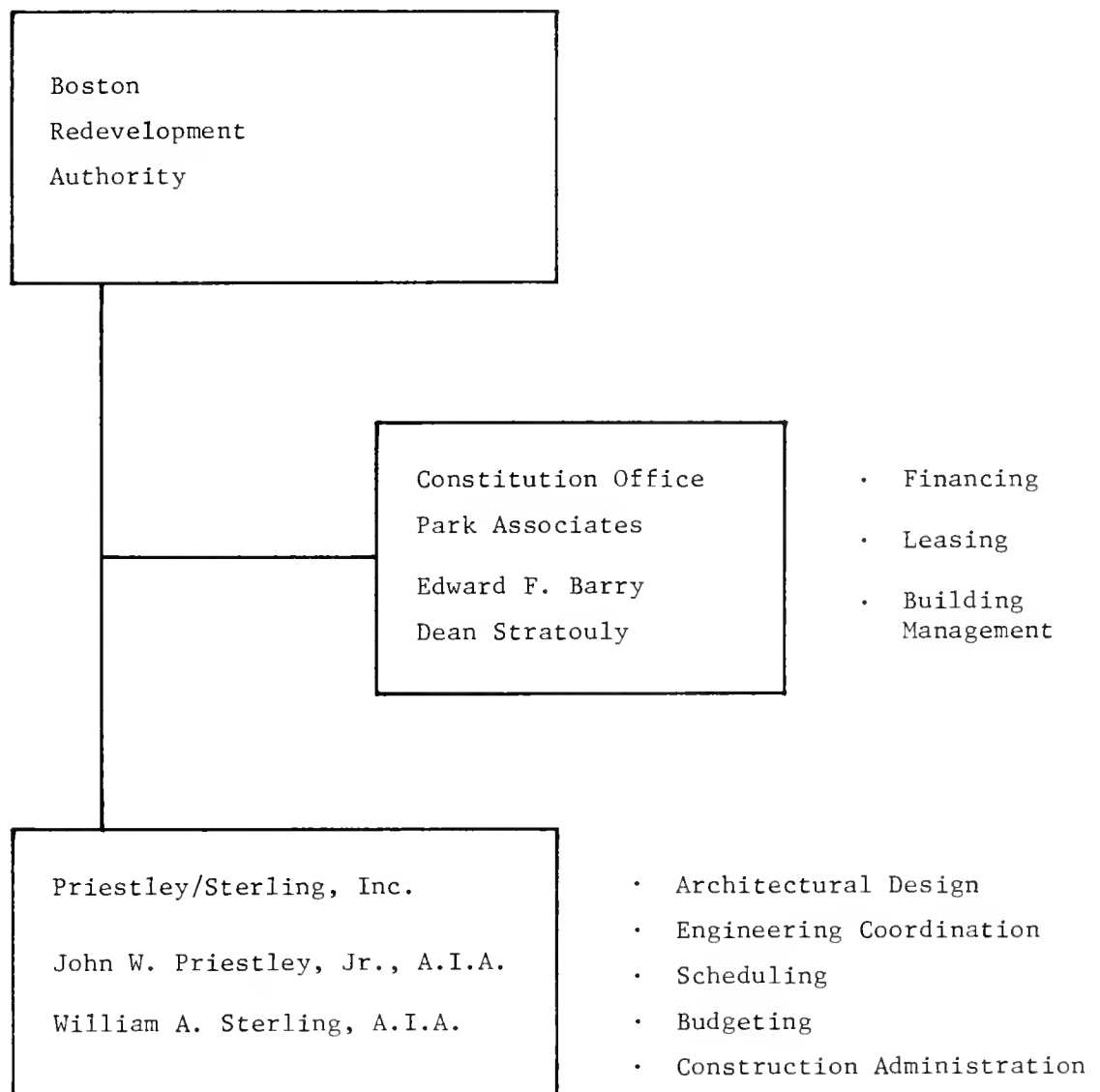
286 Congress Street
Boston, MA 02210
(617) 482-0475

Development Team

Organization Diagram

2

The organization diagram below shows the key members of the proposed development team and their respective roles. The financing, leasing and building management will be accomplished by Edward F. Barry and Dean Stratouly. The architecture and engineering coordination, scheduling, budgeting and construction administration will be performed by John W. Priestley, Jr., A.I.A. and William A. Sterling, A.I.A. The following pages include brief curriculum vitae of the team members, similar developments which have been completed by them, lenders on past projects and photographs of Russia Wharf and its tenants. The combined estimated equity is not available at this time.



Curriculum Vitae

21

CONSTITUTION OFFICE PARK ASSOCIATES represents the combination of a unique and diversified set of individuals with extensive experience in the design, construction, financing and marketing of major real estate projects.

The organization is principally comprised of the following individuals:

EDWARD F. BARRY, JR., PRESIDENT

Georgetown University
B.S. Economics

Boston College Law School
L.L.B., J.D.

Member of Massachusetts Bar - 1964

JOHN W. PRIESTLEY, JR., VICE PRESIDENT

Rhode Island School of Design
B.S. Architecture

Northeastern University
Graduate School of Engineering

Registered Architect in Five States

WILLIAM A. STERLING, VICE PRESIDENT

Boston College
A.B. Economics

Yale University
Master of Architecture

Registered Architect in Two States and
National Council of Architectural Registration Boards

DEAN F. STRATOULY, VICE PRESIDENT

Worcester Polytechnic Institute
B.S. Civil Engineering

Central Michigan University
M.A. Business

Completed Developments

The members of CONSTITUTION OFFICE PARK ASSOCIATES have completed, among others, the following projects jointly and severally:

1. BAY TOWER: 153 unit high-rise apartment complex in Boston
Value: \$5,300,000
2. 171 NEWBURY: Rental and office space in Boston
Value: \$1,000,000
3. WATERVIEW: 49 unit apartment complex in Boston
Value: \$1,200,000
4. 20-24 NEWBURY STREET: Retail and office space in Boston
Value: \$2,000,000
5. 77 NORTH WASHINGTON STREET: 110,000 sq. ft. of retail and office
space in Boston
Value: \$3,000,000
6. RUSSIA WHARF: 300,000 sq. ft. of retail and office space in Boston
Value: \$20,000,000

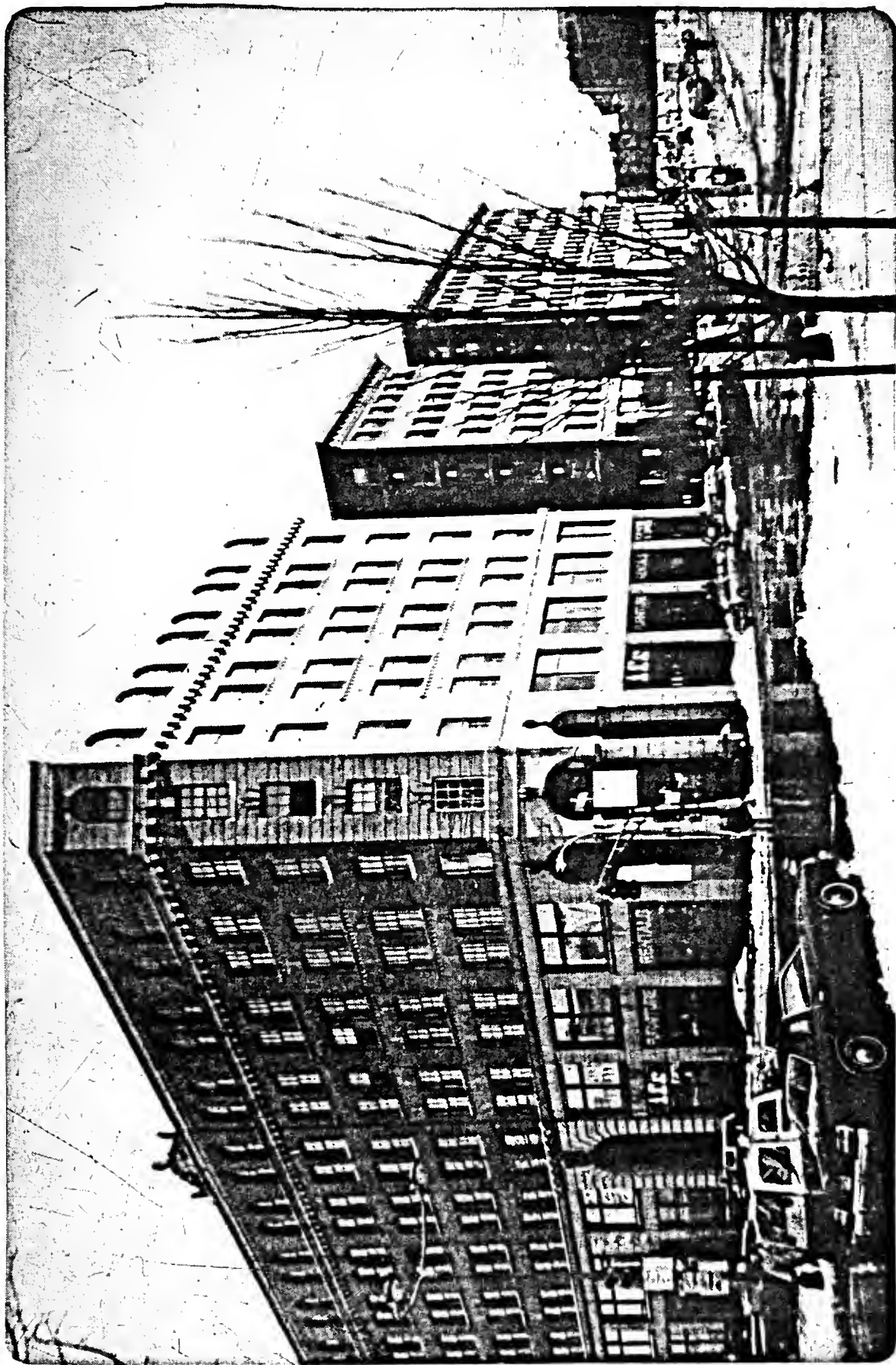
Lenders on Past Projects

51

The following is a list of lenders on past projects completed by members of CONSTITUTION OFFICE PARK ASSOCIATES:

1. BAY TOWER: Federal Savings & Loan Assoc. of Worcester
2. 171 NEWBURY: Sold
3. WATERVIEW: Mass. Housing Finance Authority
4. 20-24 NEWBURY STREET: Home Savings Bank
5. 77 NORTH WASHINGTON STREET: C.N.B. Equity Corp.
6. RUSSIA WHARF: AETNA Casualty & Assurity, Inc.

RUSSIA WHARF, 286 CONGRESS STREET, BOSTON, MA

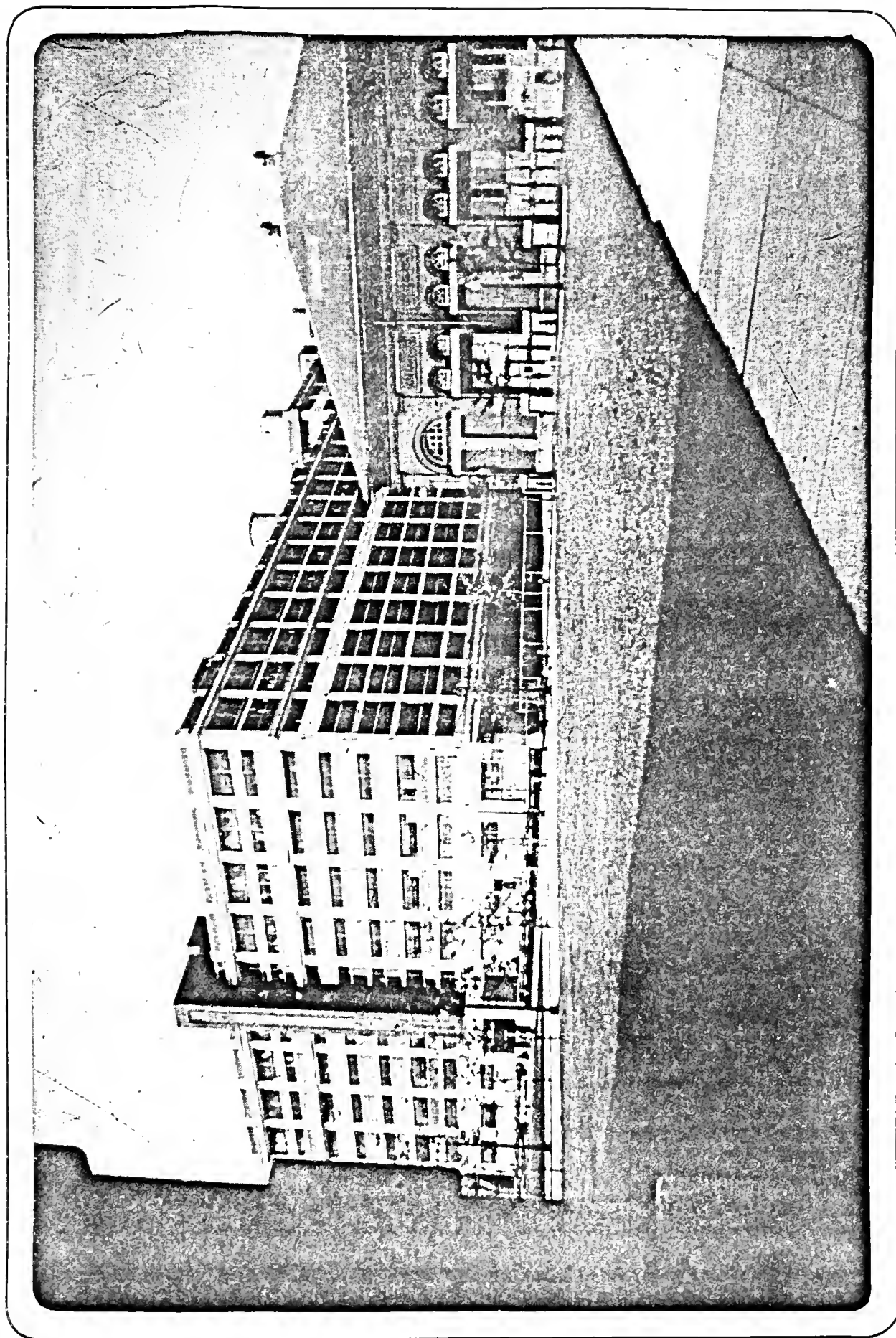


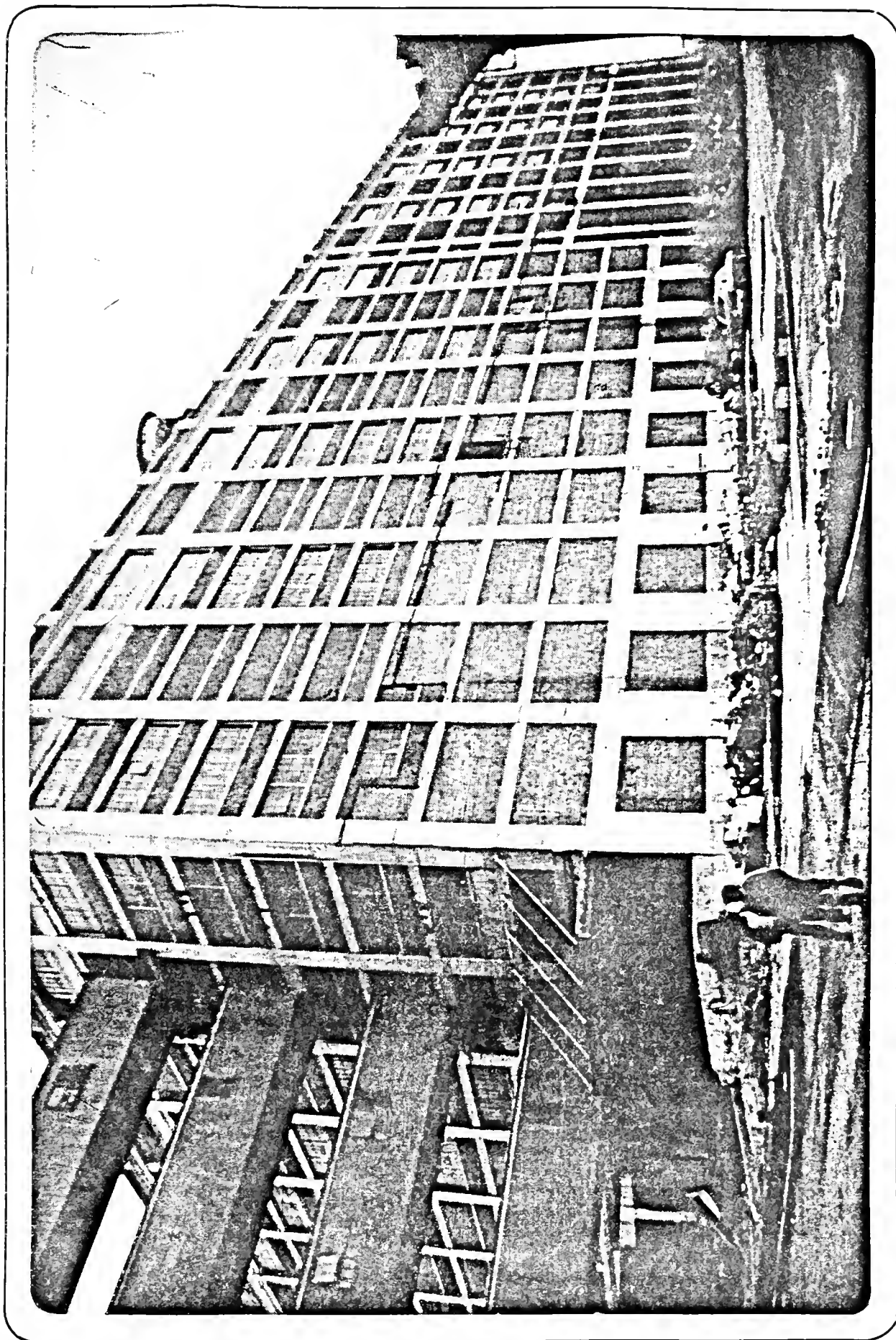


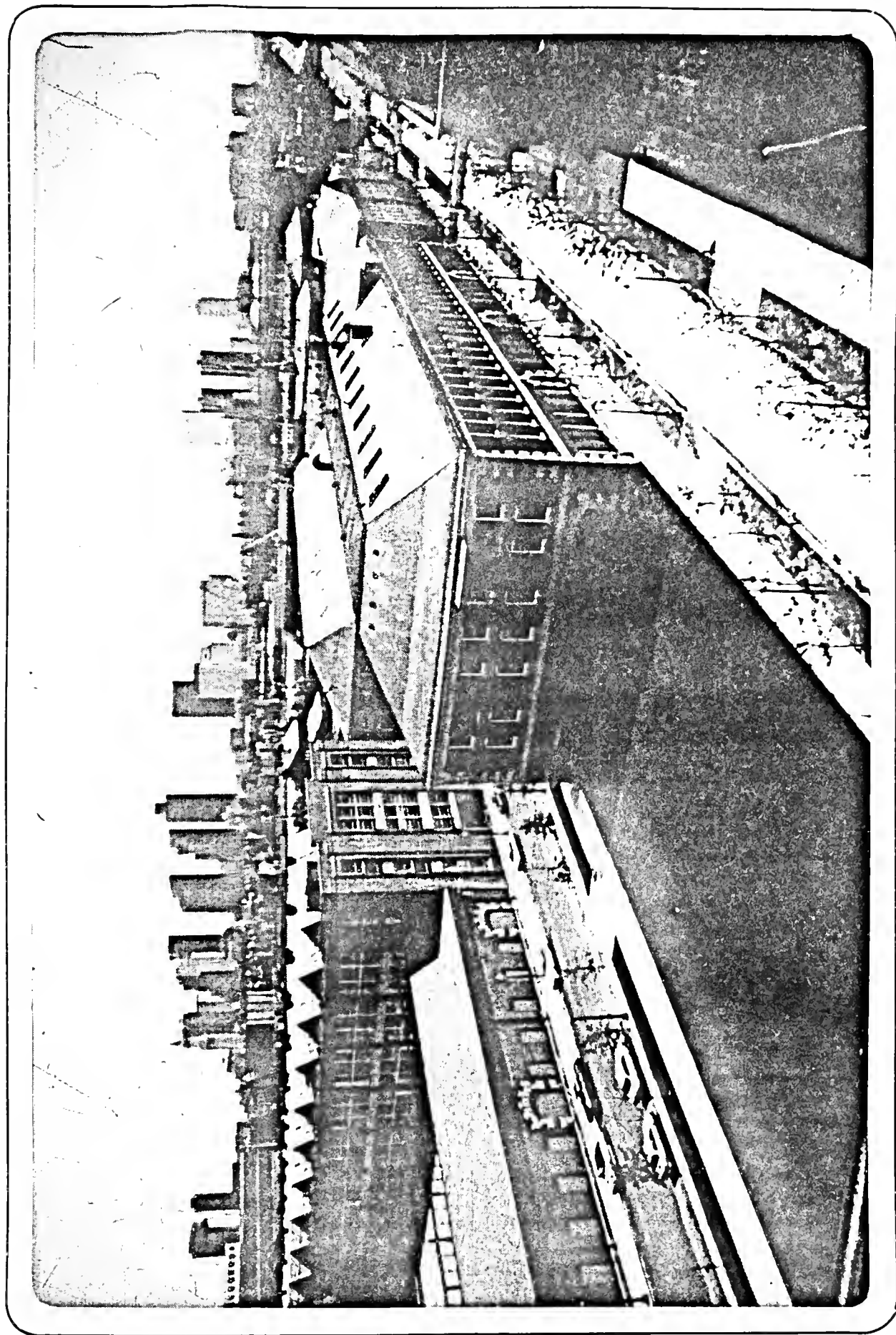
ATRIUM SPACE



TENANT SPACE







Site Considerations

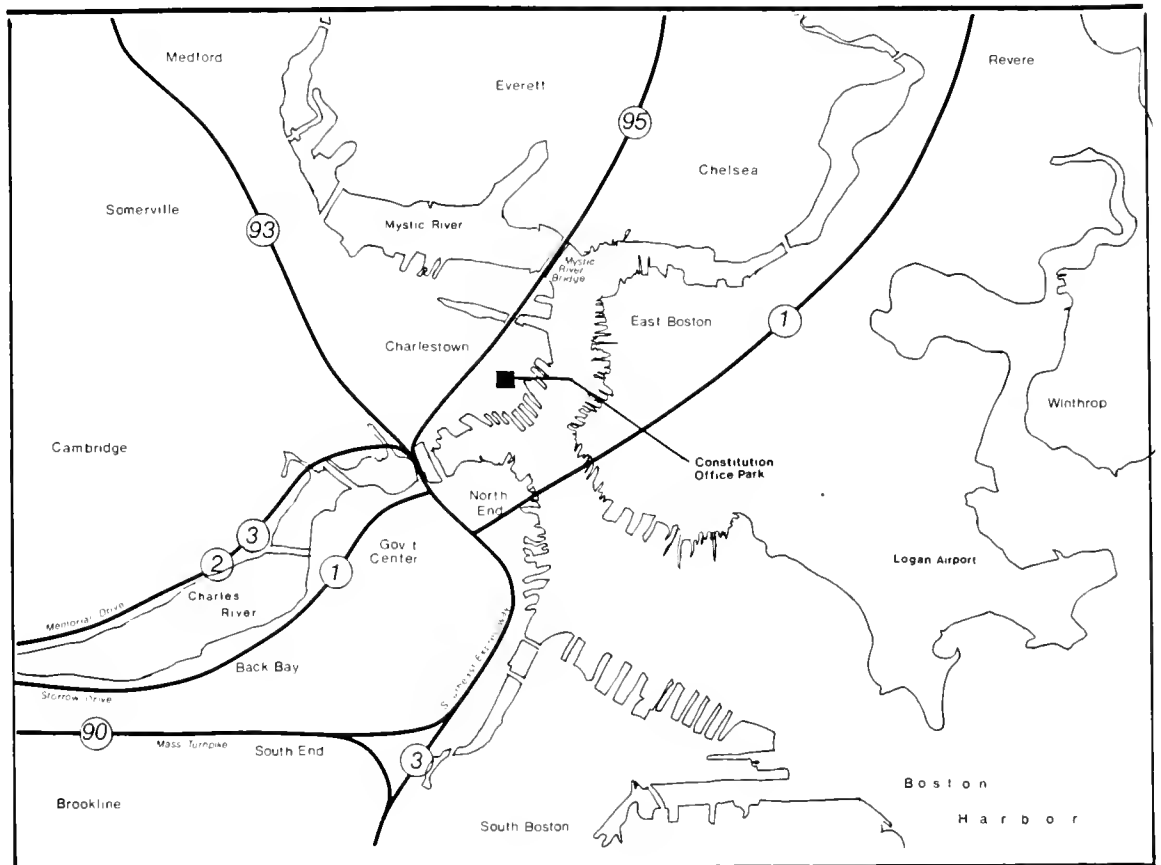
Site Diagrams

9

The following maps help define the location and context of the Constitution Office Park. These are duplicated in a slide presentation which has already been used for generating tenant interest. Beneath the diagrams we have provided captions of information critical to potential occupants.

Major Routes Thru Boston

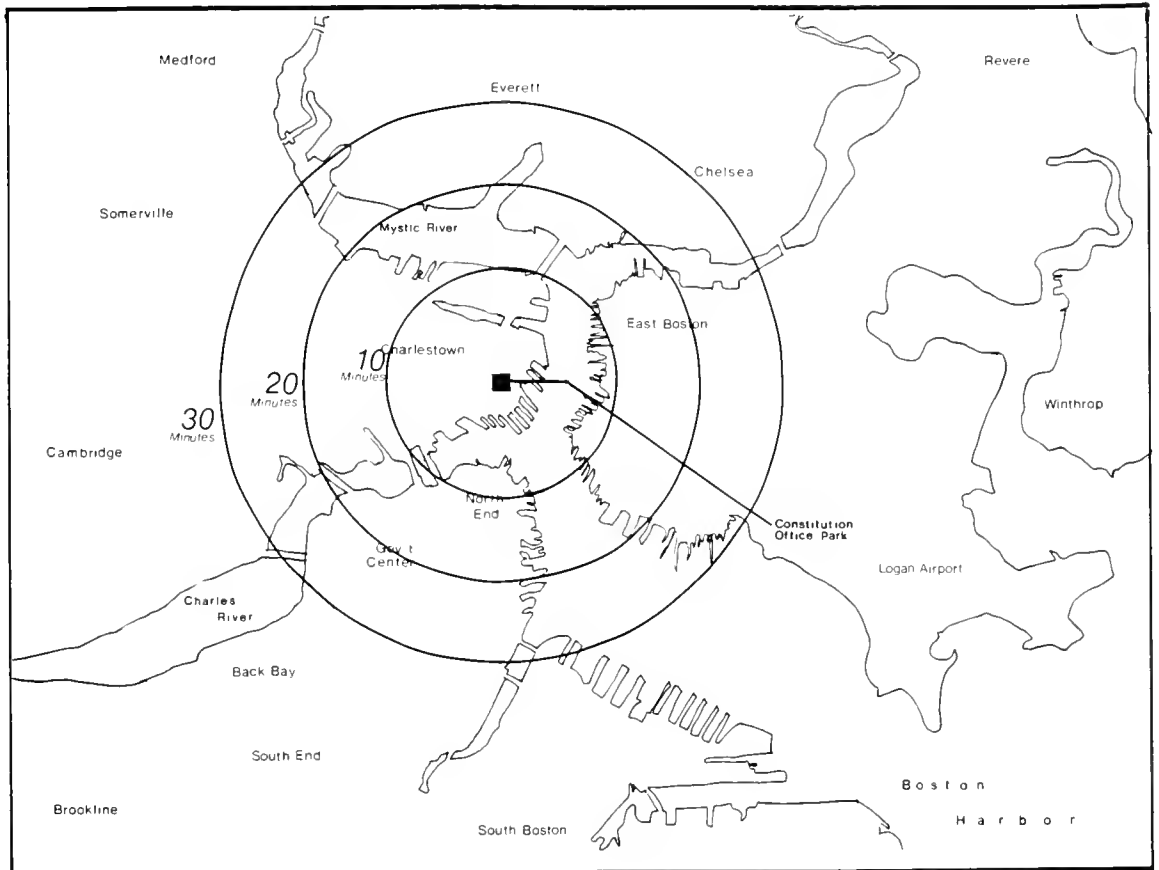
10



Constitution Office Park is one of the very few office buildings in Boston which can provide two parking spaces for every 1000 square feet of office area. Being only one block off the intersection of Routes 2, 93 and 95, it is easily accessible to commuters from all directions whether by car, rapid transit, shuttle or by foot.

Pedestrian Travel Time

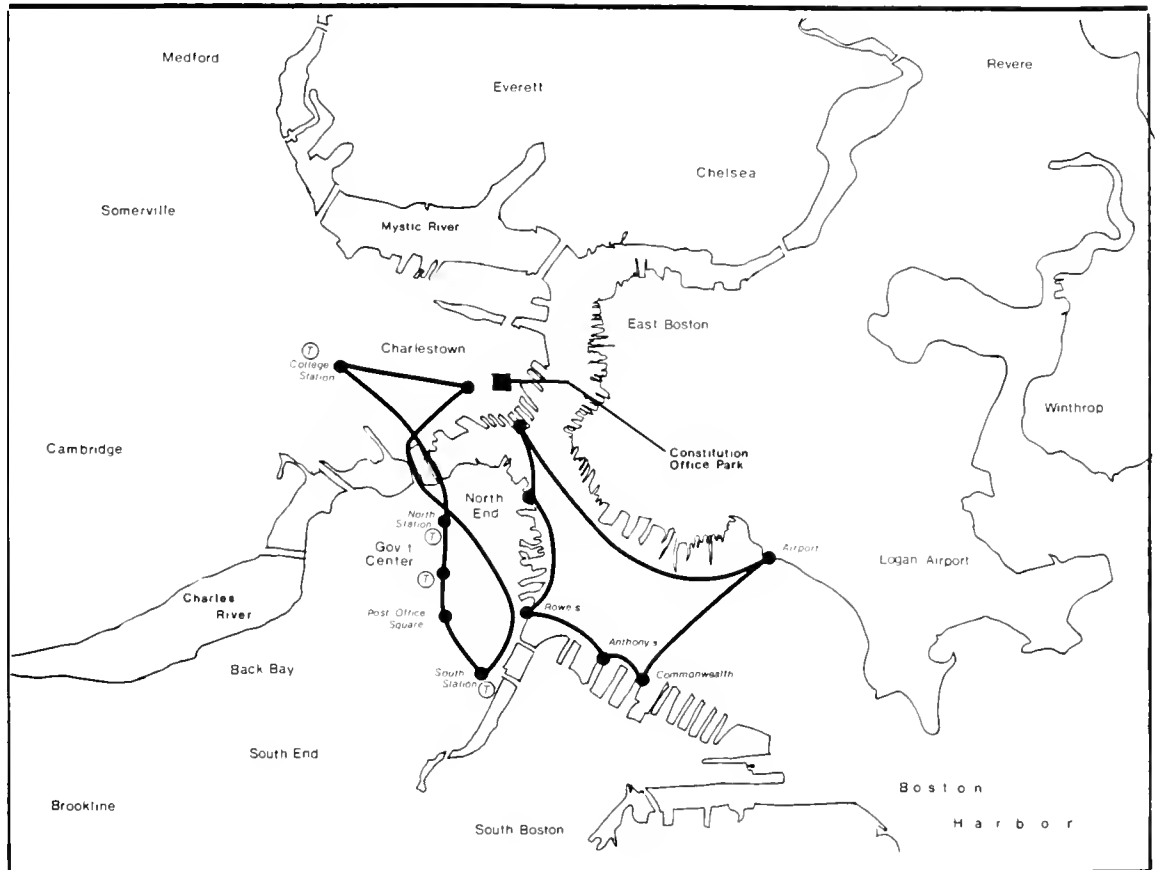
11



Few people recognize that Charlestown is a 10 to 15 minute walk from Boston's Government Center and very accessible to rapid transit and vehicular routes north, south, west, and east to the airport.

Shuttle Bus and Ferry

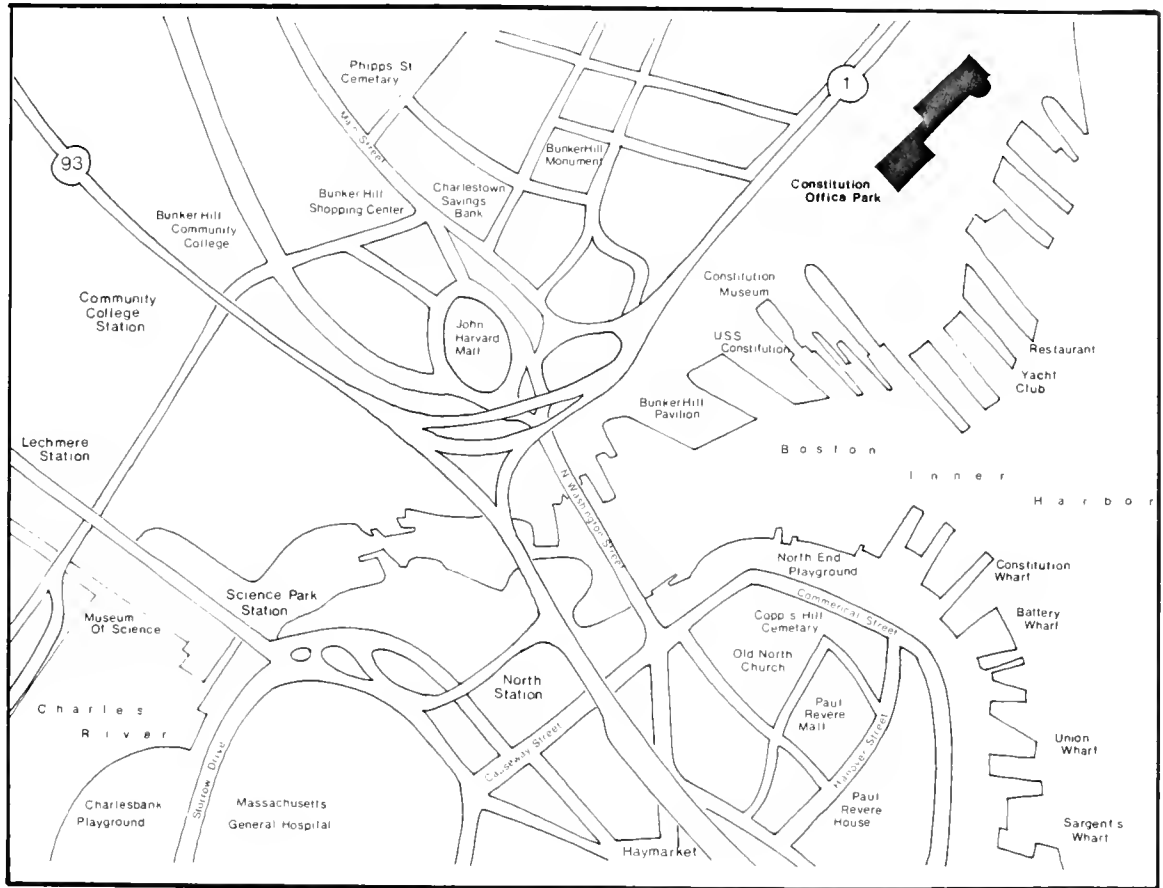
12



Existing commuter routes to the Navy Yard will be supplemented by the introduction of a shuttle bus which will loop through Boston to the South Station and back and a ferry service which will include a stop at Logan Airport, several stops in Boston and one at the Navy Yard.

Charlestown/North End Neighborhoods

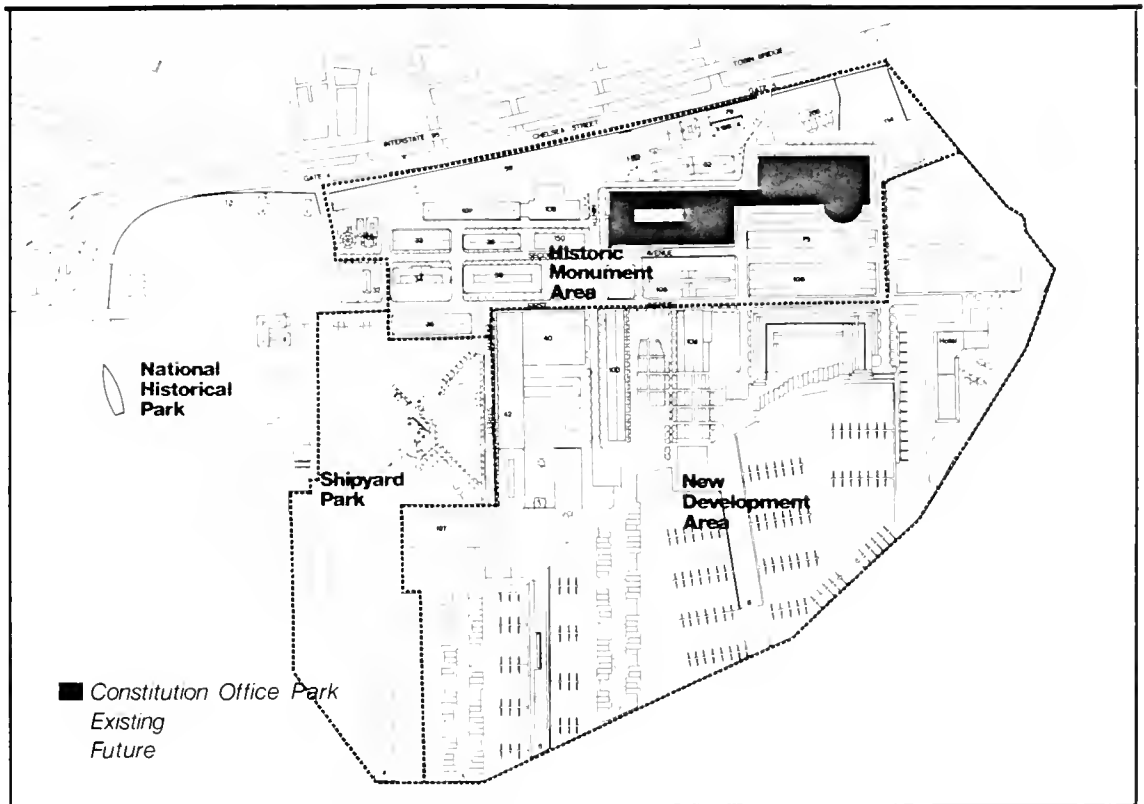
13



Neighborhood features of interest to potential tenants include nearby Bunker Hill Community College, Bunker Hill Shopping Center, and Charlestown Savings Bank as well as North Station and several amenities of the North End.

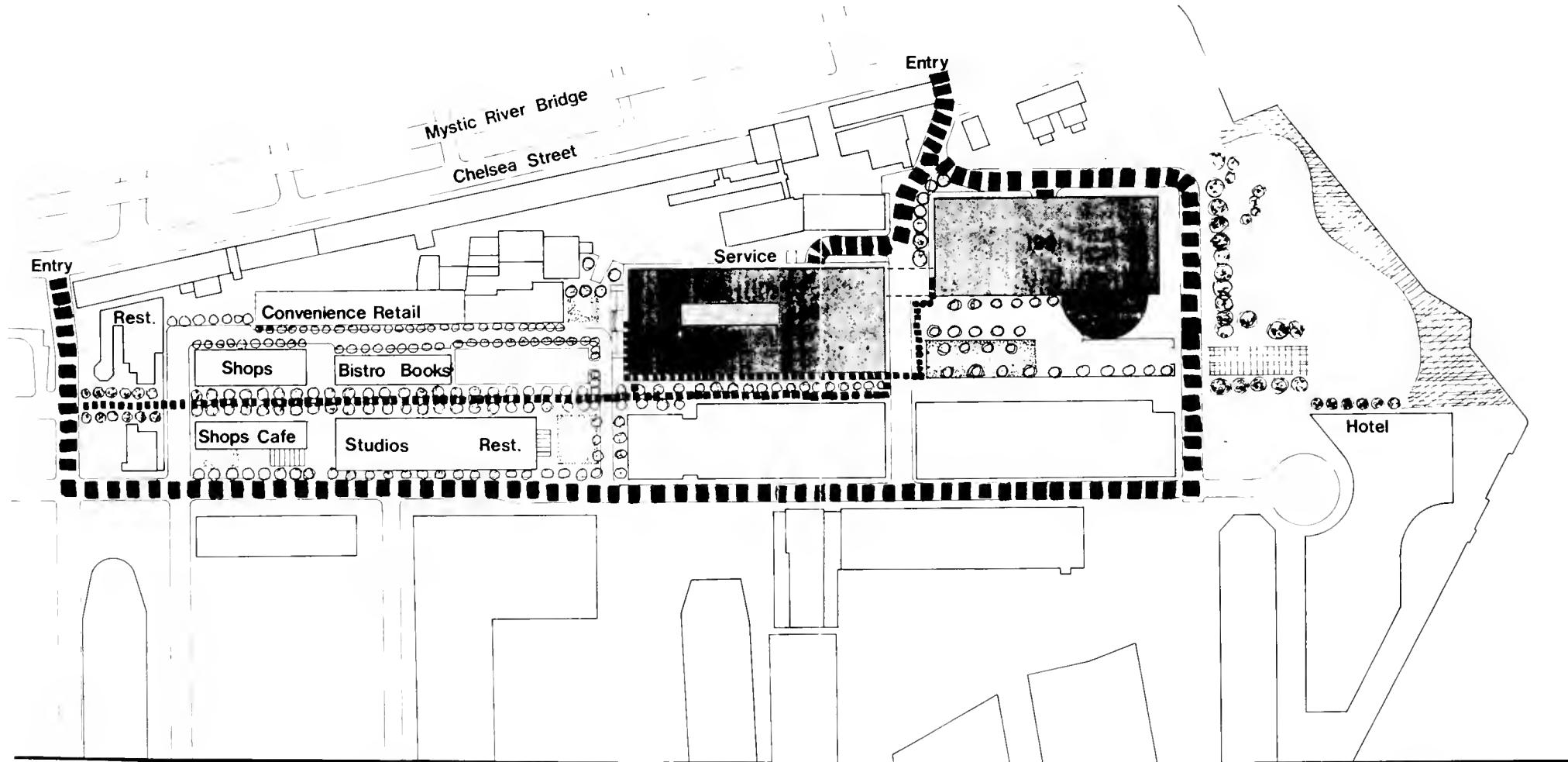
Constitution Office Park Area

14



It is of significance to anyone considering tenancy in this office park to know the present and proposed development plans for the entire Navy Yard. In addition to the two museums and the USS Constitution itself, present developments include Constitution Park, Constitution Quarters (367 residential units with parking), the marina (100 slips), the marina restaurant, and all street improvement for various buildings in the historic area. It is estimated this will bring 830 new employees into developed office and commercial space in the two blocks directly adjacent to the proposed Constitution Office Park.

Future developments include a total investment of \$150 million by Immobiliare for housing and residential town house condominium projects. Scheduled for construction this year will be 150 units of condominiums and 120 units of Section 8 housing for the elderly. In the next few years there is planned 20,000 SF of commercial space, parking for 1270 cars and a 500 room hotel on the waterfront.



Immediately adjacent neighbors within the Navy Yard will consist of two blocks of retail use at the ground level and small office spaces above. Constitution Office Park will contain 500 parking spaces for this retail and office use and an additional 1050 spaces for its own tenant occupants.



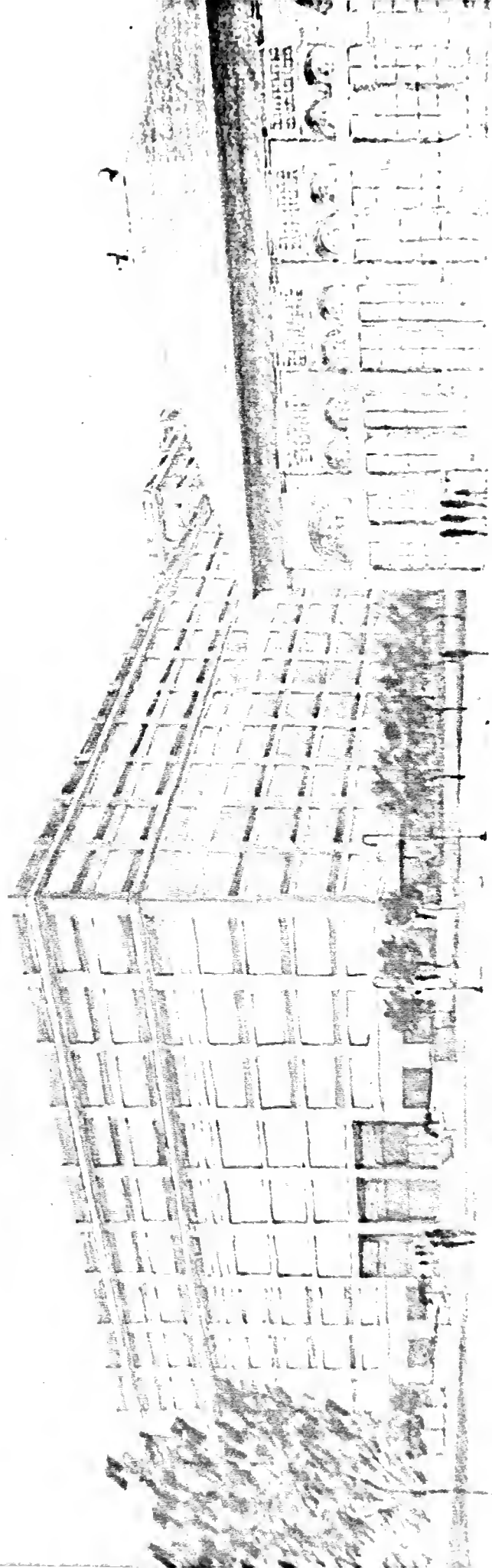
Site Plan

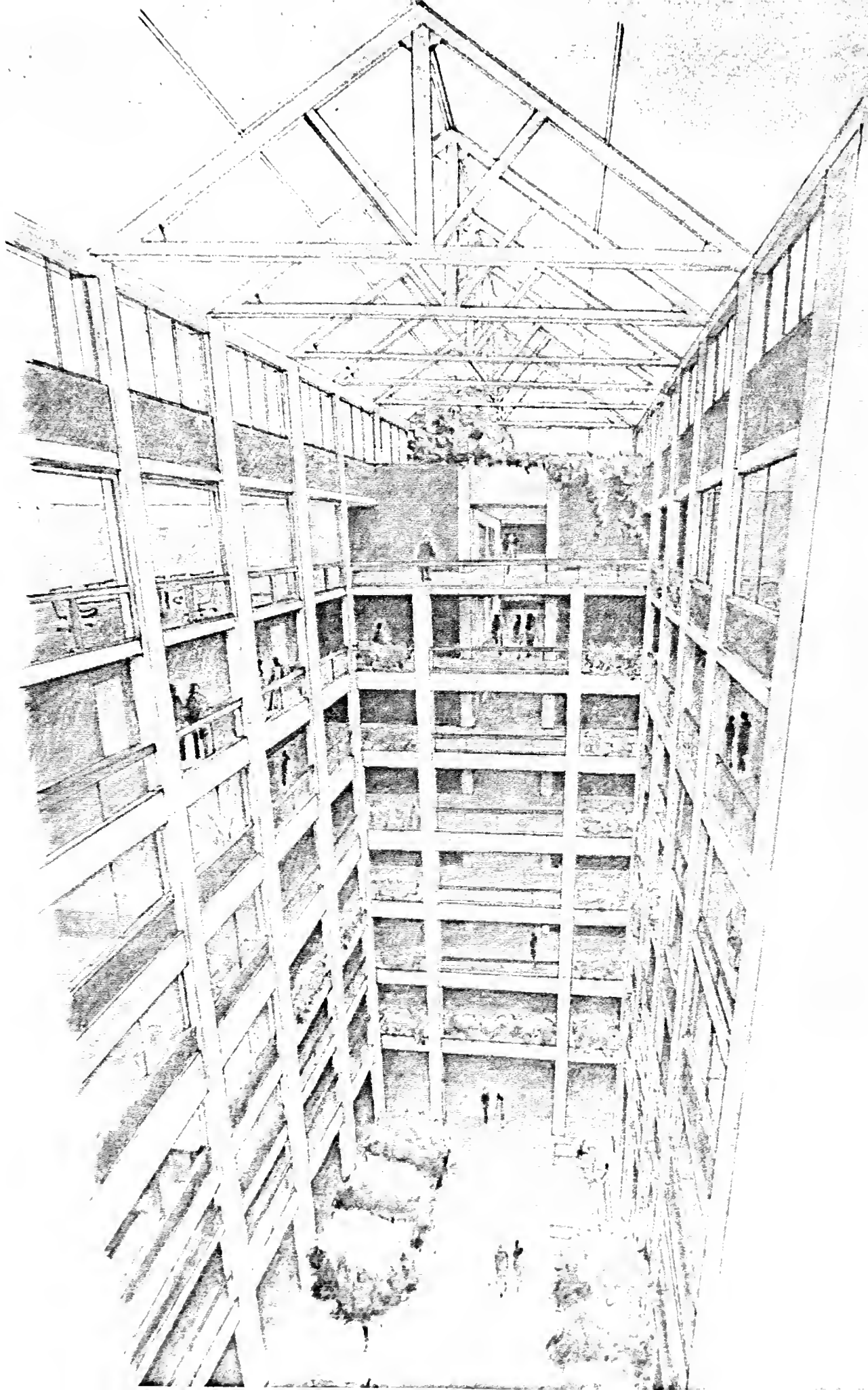


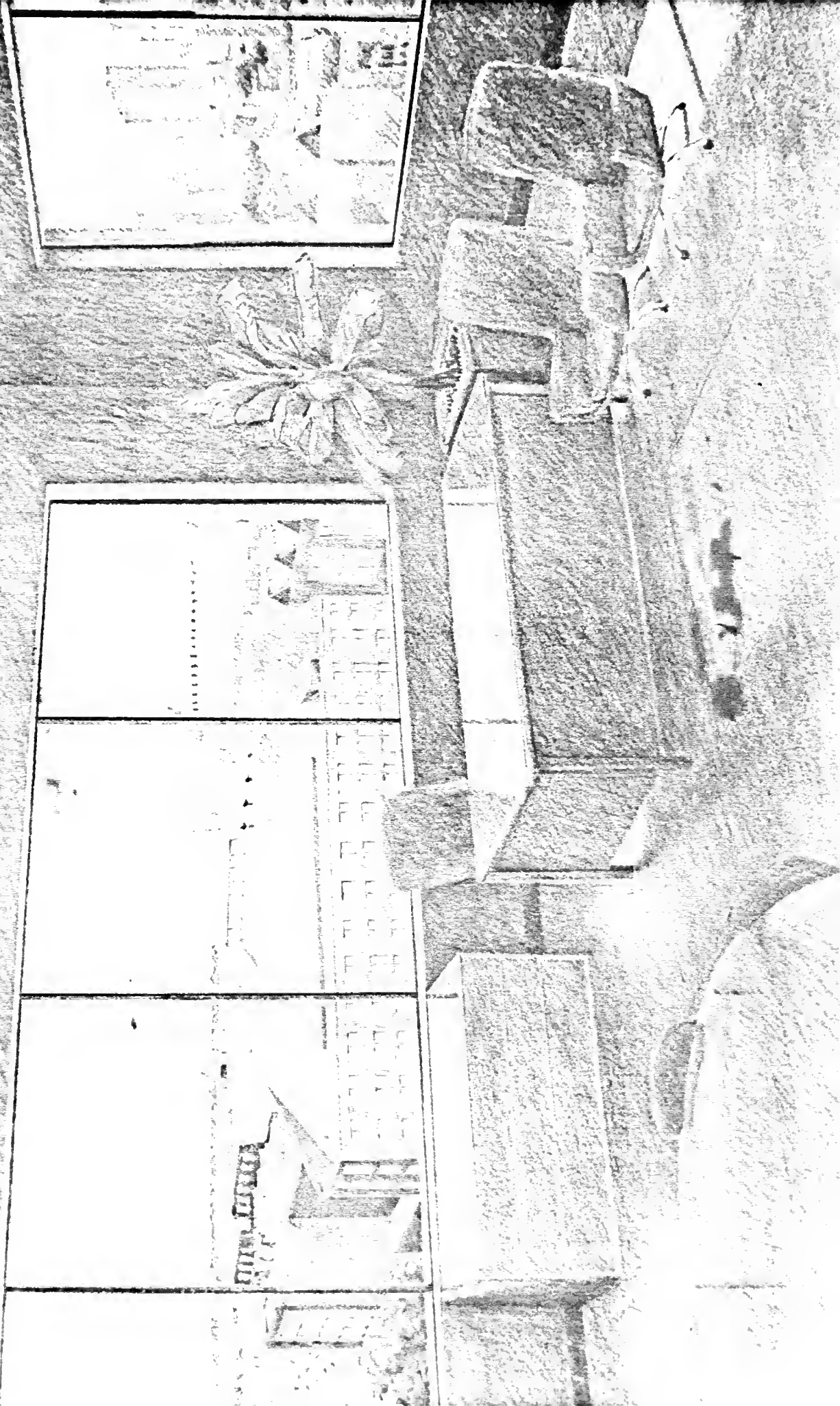
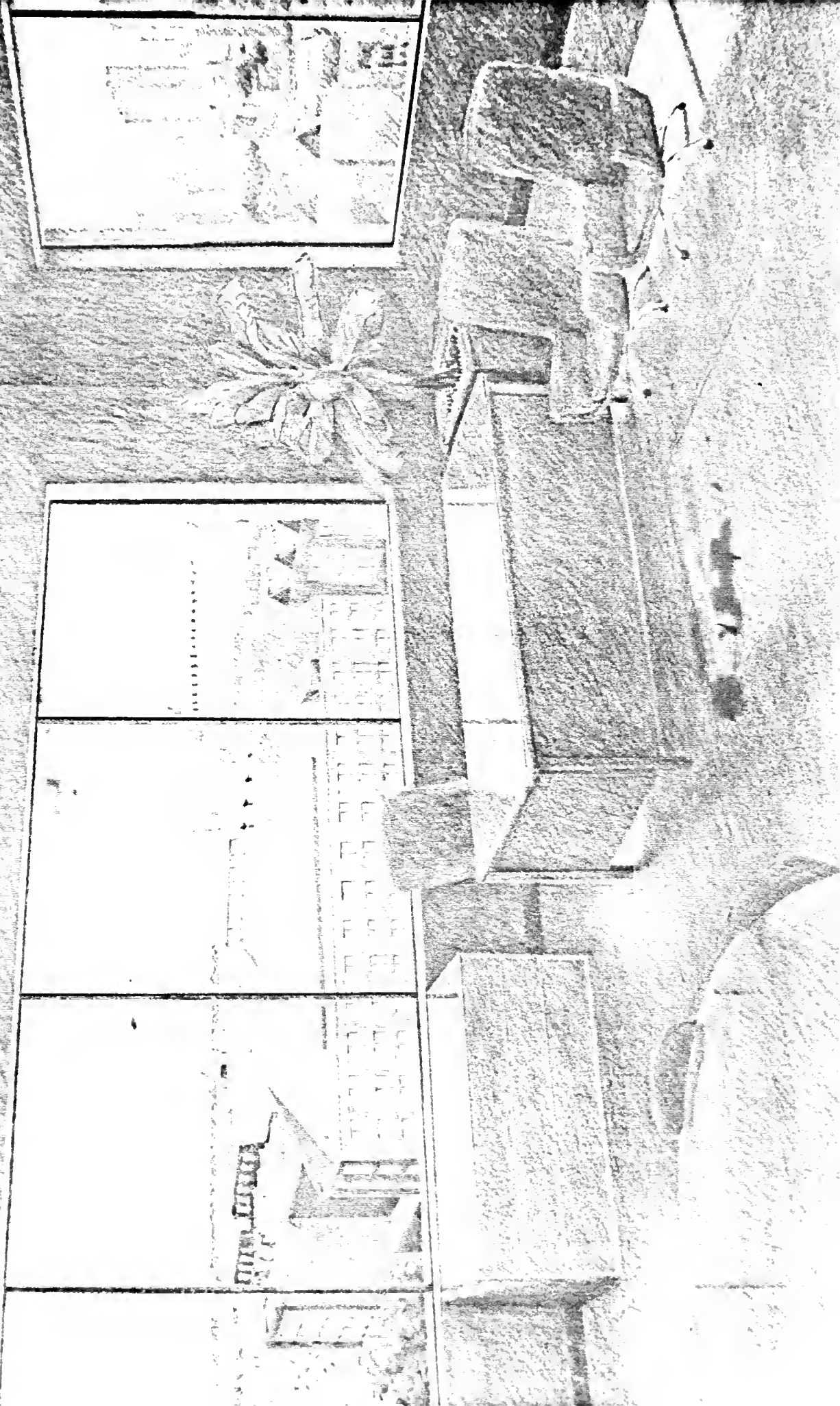
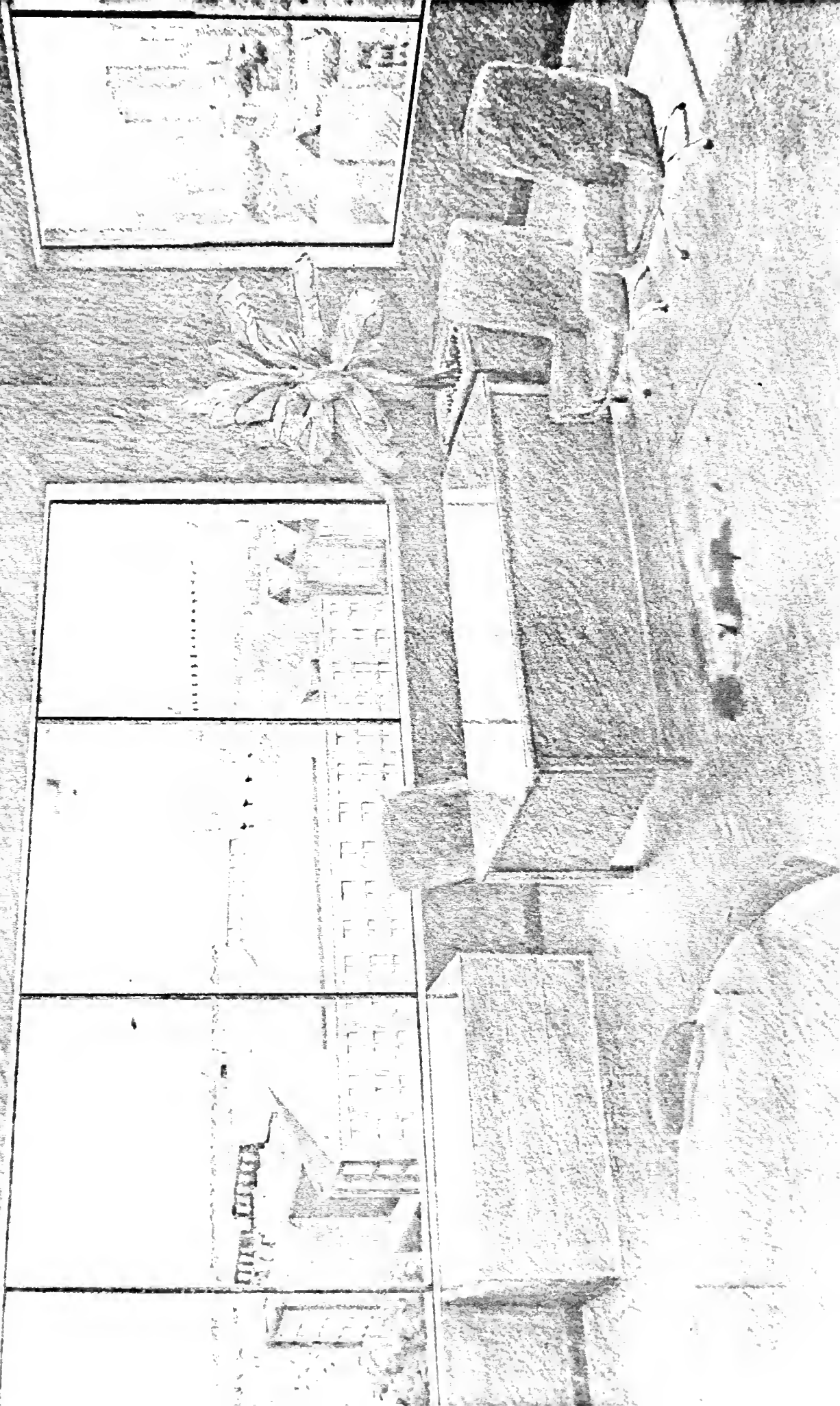
Artist Renderings

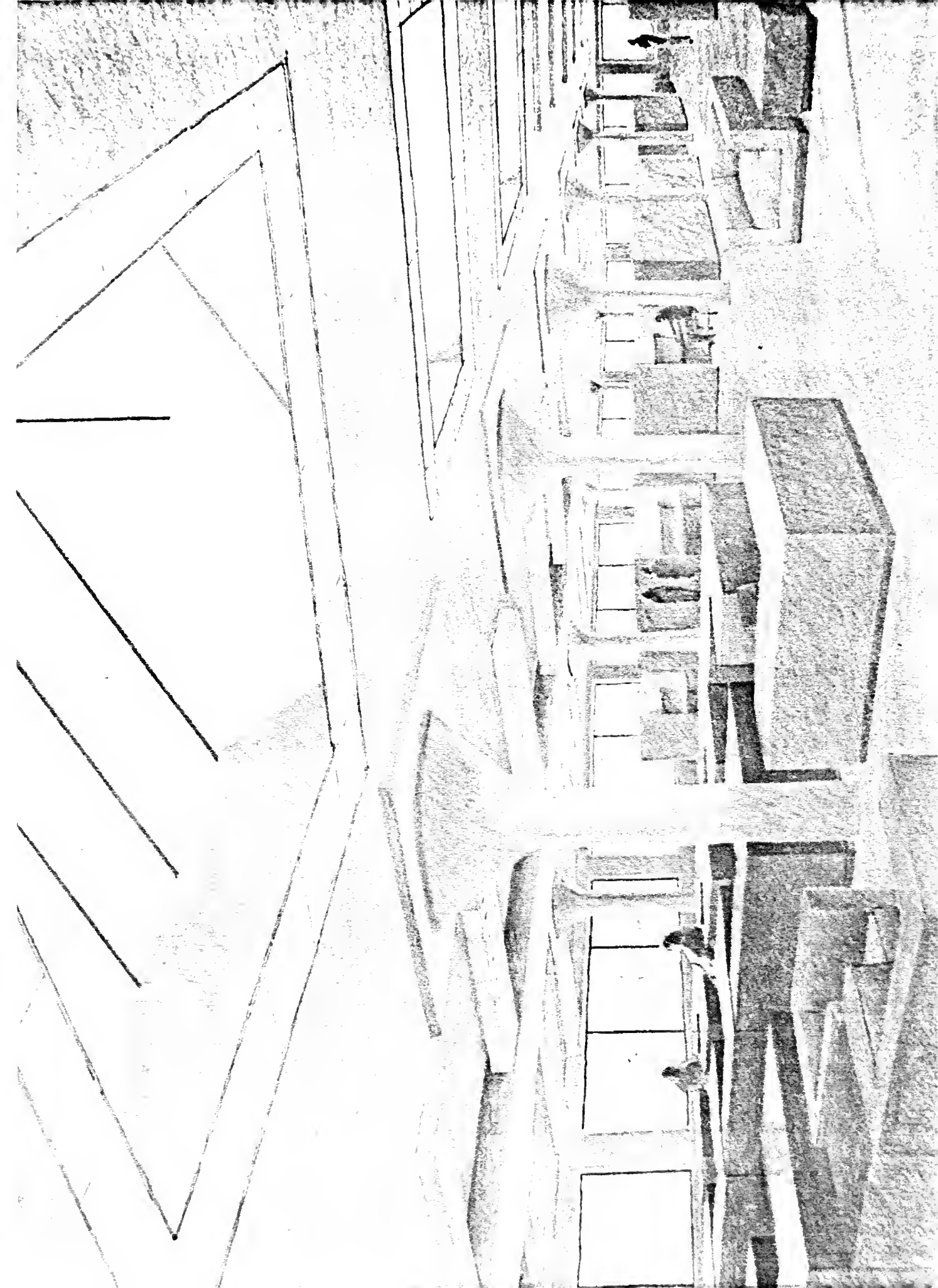
16

The following renderings show how the building will be improved for office use. A dramatic entry from outside will invite visitors into the ground level lobby. The existing atrium will be landscaped at the lower level and along its sidewalls. Tenants will have the option of opening pedestrian walkways along its openings or placing closed offices with windows up to the atrium face. The atrium roof will be replaced with glass lites. Typical open office layouts will provide panoramic views of the surroundings. Existing skylights on the top floor can be replaced with new domes bringing additional daylight to the interior work areas. From the south and west walls are most dramatic views of Boston, the Harbor and Logan Airport.









Building Uses

The attached building use plans (page 23) show the proposed use of Building #149 as primarily office space and Building #199 as primarily parking. The attached summary (page 22) shows a square footage breakdown of building uses.

Because it is in the anchor position in relation to the adjacent retail development on the ground level, the western half of Building #149 would be a good location for additional retail use. The eastern half would be parking on the lower four floors. All remaining floors would be for office use. Because of low floor to floor heights in Building 199 and the BRA's stated need for a large amount of additional parking on the site, the entire building is proposed to be a parking structure raising the total number of parking spaces to 1550. Existing connecting bridges will remain on floors 6 and 8. The lower bridges on floors 2 and 4 will be widened to receive two-way traffic. A new bridge at the third floor will also be added for two-way traffic between Buildings 149 and 199.

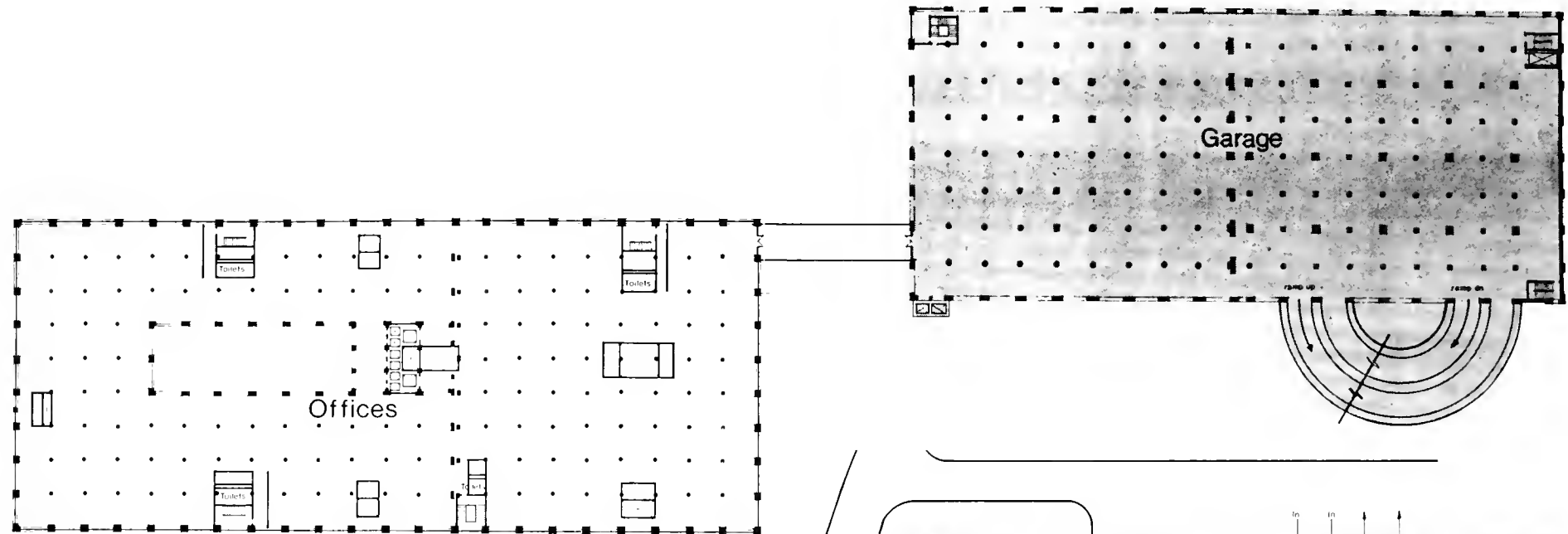
Square Footage Summary

22

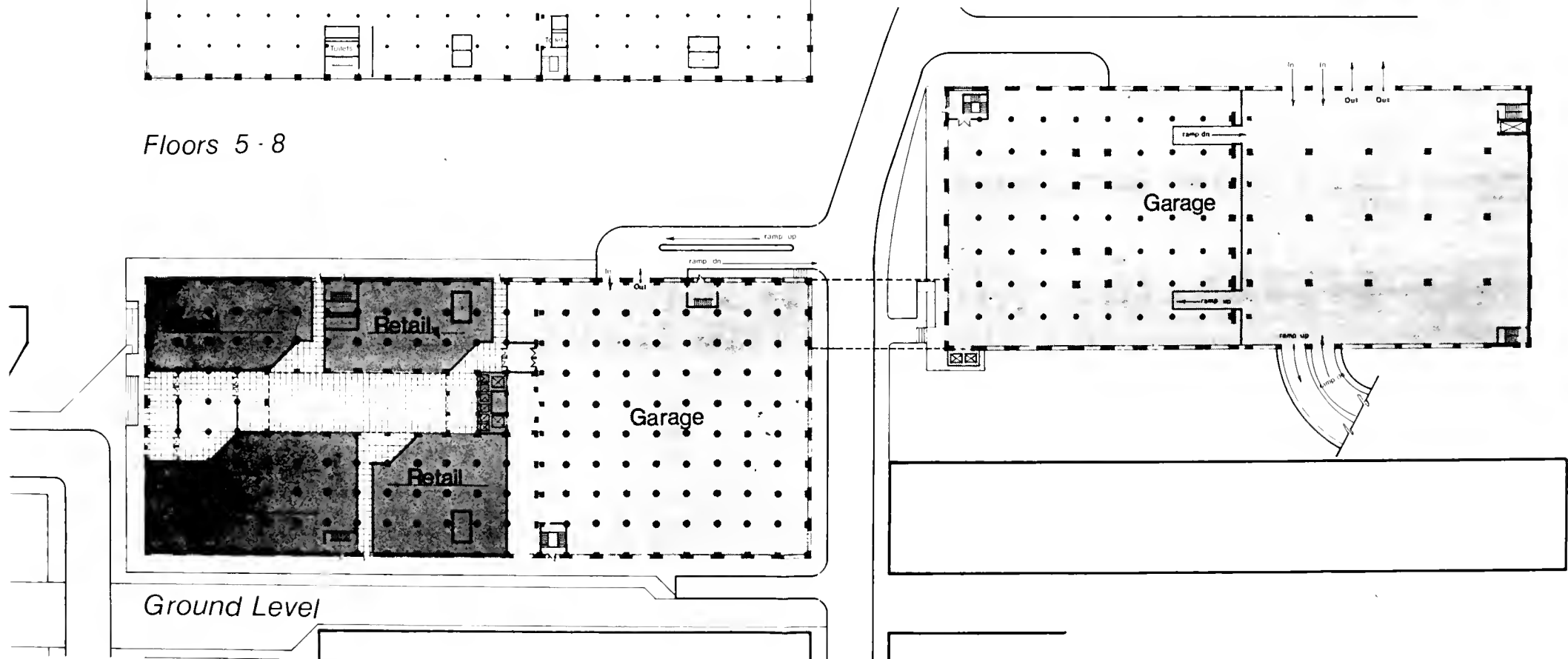
	<u>COMMON*</u>	<u>RETAIL</u>	<u>NET OFFICE</u>	<u>PARKING</u>	<u>TOTAL</u>
<u>BUILDING #149</u>					
First Floor	11,088	28,688		36,800	81,328
Second Floor	1,210		38,518	36,800	76,528
Third Floor	1,210		38,518	36,800	76,528
Fourth Floor	1,210		38,518	36,800	76,528
Fifth Floor	1,410		75,118		76,528
Sixth Floor	1,410		75,118		76,528
Seventh Floor	1,410		75,118		76,528
Eighth Floor	1,410		75,118		76,528
Ninth Floor	1,210		35,590		36,800
Tenth Floor	<u>2,400</u>	<u> </u>	<u>34,400</u>	<u> </u>	<u>36,800</u>
TOTAL	23,968	28,688	486,016	147,200	690,624

*DOES NOT INCLUDE STAIRWAYS AND PASSAGE/CORRIDORS

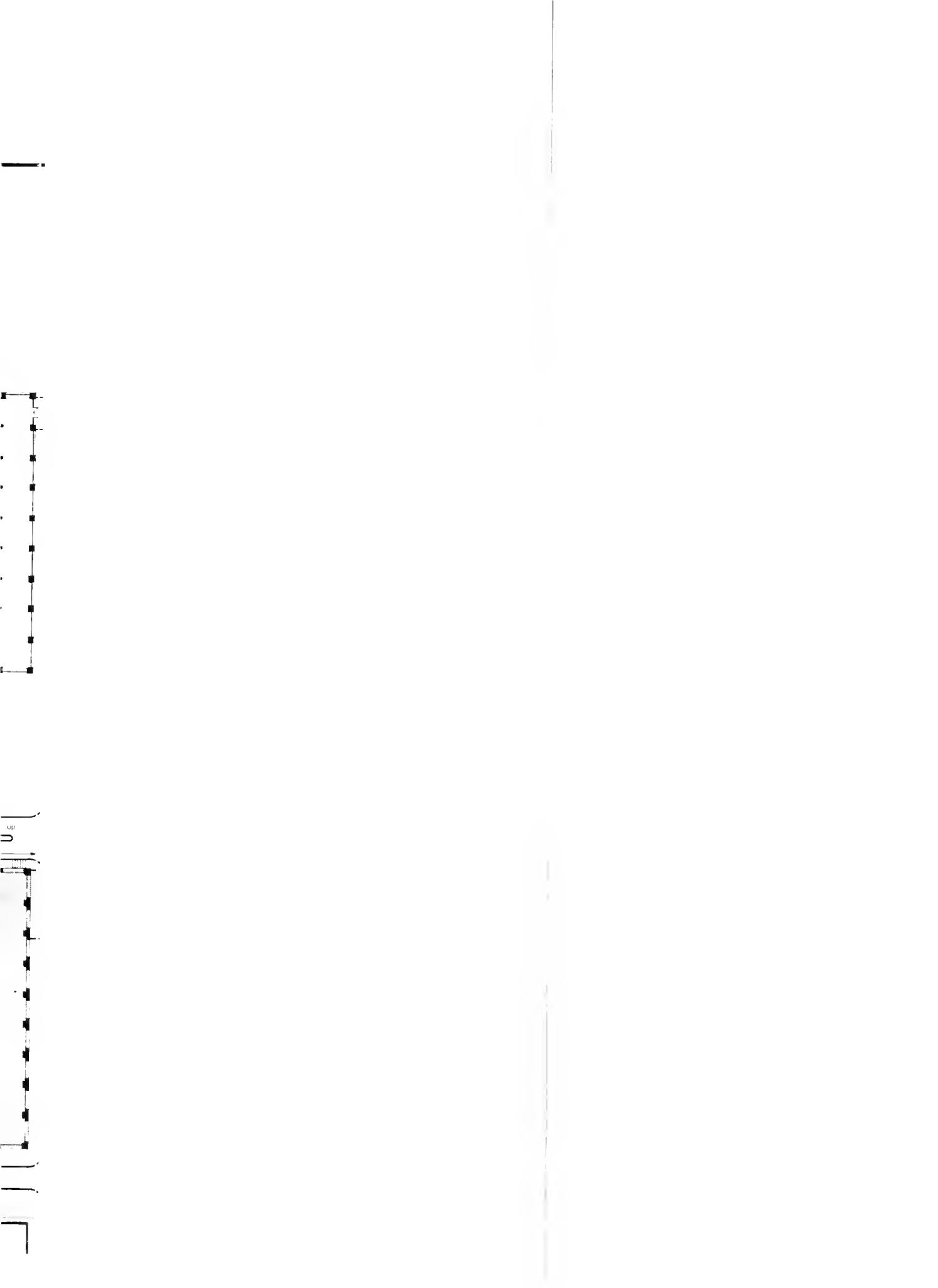
<u>BUILDING #199</u>	<u>PARKING</u>
First Floor	67,860
Floors 2, 3, & 4	
Existing (3 @ 33,636)	100,908
New (3 @ 34,224)	102,672
Floors 5 through 9	
(5 @ 67,860)	<u>339,300</u>
	610,740

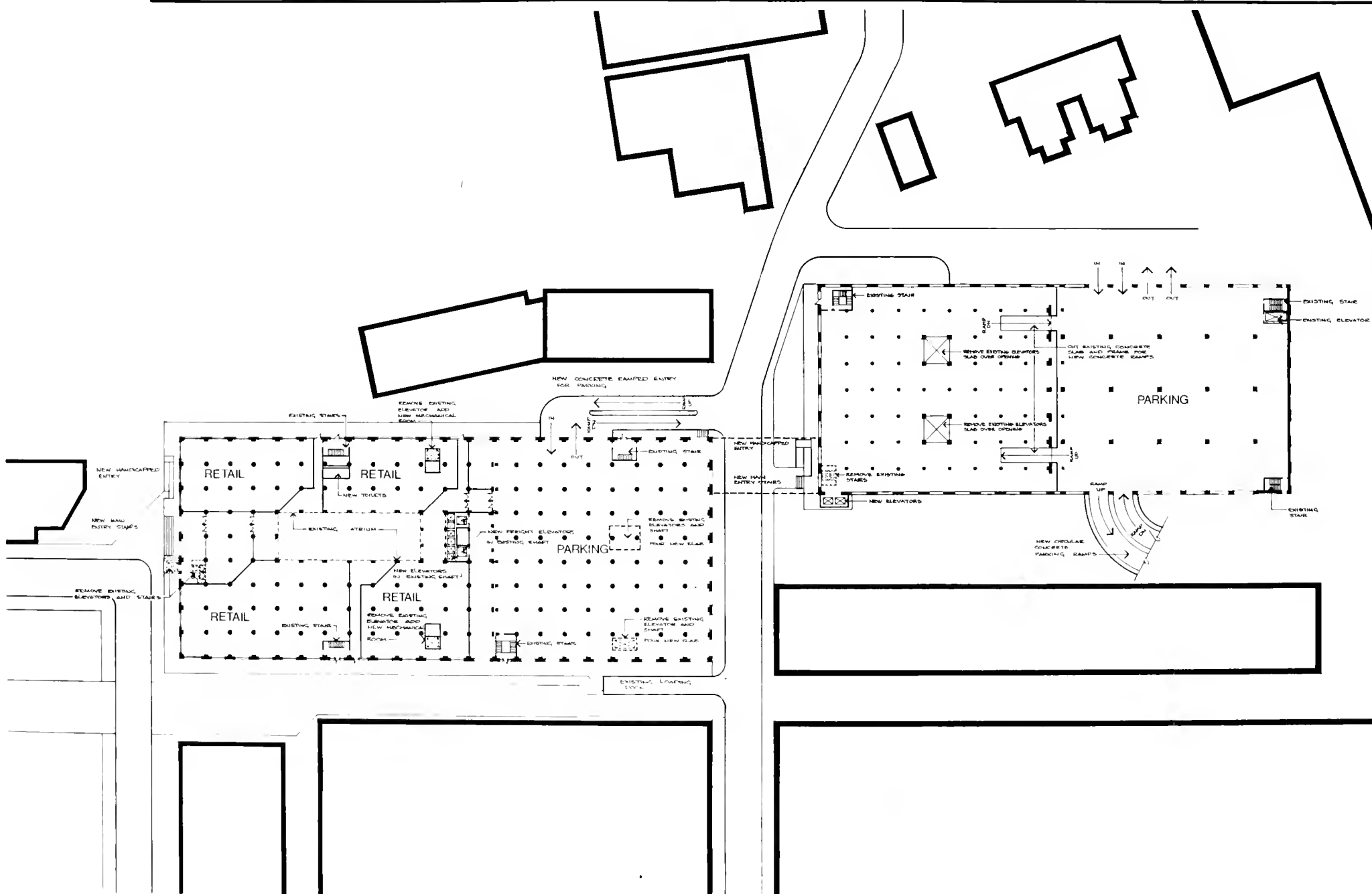


Floors 5 - 8



Ground Level



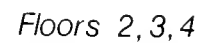


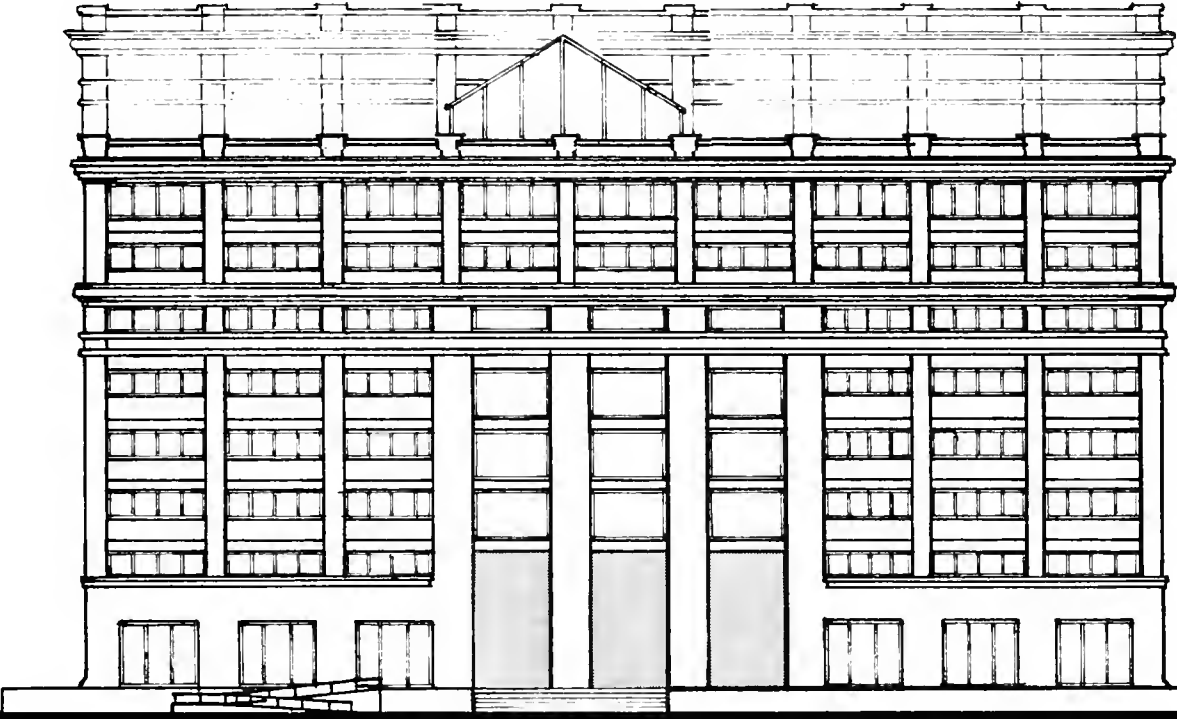


NEW MAN
ENTRY

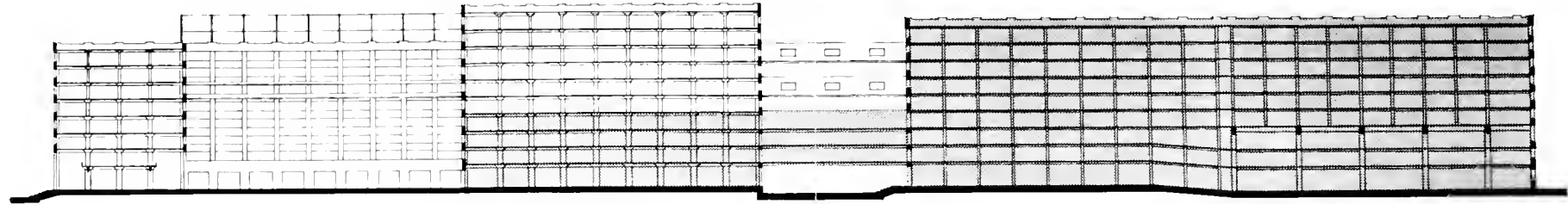
NEW MAN
ENTRY

UP
5
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100





Parking



Longitudinal Section



South Elevation

11

Feb
2011

11

11

11

11

Market demand for parking is very high in Boston and higher as you move away from the Financial Center. In this location, the minimum needed to make a viable office park is one parking space per 1000 square feet of office space. The office space in Building 149 alone would require 500 spaces and the adjacent retail/office developments require another 500 spaces. By converting all of Building #199 to parking space and building a spiral access ramp, from the full 9 floors we obtain a total of 1550 full-size parking spaces in an otherwise marginally marketable space. We also eliminate the cost of duplicating elevators, mechanical, electrical and plumbing installations, reducing the risk of high development costs. The excess of 550 spaces over minimum market requirements significantly improves the marketability of the office space in Building #149, giving it a competitive edge over most other office developments in the Boston area. This solution generates an average of 2 cars per 1000 SF of office space.

Garage Operations

We propose to design, finance and build the parking garage as a separate entity. When it is ready for occupancy, we would place it in the control of the B.R.A. who would designate a parking garage operator as a tenant.

The following page contains an itemized estimate of construction costs for the parking garage. The cost is estimated to be \$3,800 per car which is comparable to costs of new garages.

Due to present shortage of parking in the city, the garage may very well be developed immediately as a park and lock operation with shuttle service into the city. The presence of this as a first phase could add to the credibility and marketability of the proposed adjacent retail and commercial space as well as office space in Building 149.

Parking Summary

30

	Square Feet	Compact Cars	Full Size Cars	
<u>Building 149</u>				
Ground Floor	36,800	47	47	
Second Floor	36,800	46	46	
Third Floor	36,800	46	46	
Fourth Floor	36,800	46	46	
Subtotal	147,200	185	185	370
 <u>Building 199</u>				
Ground Floor	67,860		108	
Second Floor	67,860		124	
Third Floor	67,860		124	
Fourth Floor	67,860		124	
Fifth Floor	67,860		140	
Sixth Floor	67,860		140	
Seventh Floor	67,860		140	
Eighth Floor	67,860		140	
Ninth Floor	67,860		140	
Subtotal	610,740			1,180
 TOTAL	 757,940	 185	 1,365	 1,550

*NOTE: The roof would also be available for an additional 140 cars for the cost of adding an additional level to the access ramp.

Proforma Schedule

Garage Proforma

21

Development Cost Assumptions

1. Construction in June of 1983
2. Spaces = 1,550
3. Total Development Costs (6/83)

Basic Construction	=	\$5,920,000
Design Fee (6% of Construction)	=	355,200
Legal and Accounting Fee	=	100,000
Administrative Costs (8% of Construction)	=	<u>500,000</u>
Total Development Cost		\$6,875,200
4. Total Development Costs (6/83) \$6,875,200
5. \$/Space (6/83) $\$6,875,200/1,550$ = \$4,435/Space

Revenue and Expense Assumptions

1. Operating Periods

<u>Period 1</u>	<u>Period 2</u>	<u>Period 3</u>
6/84 - 12/84	1/85 - 12/85	1/86 - 12/86

2. Operating Expenses = \$1.20/Space/Day (6/82)

<u>Period 1</u>	<u>Period 2</u>	<u>Period 3</u>
1.32	1.45	1.60

3. Parking Occupancy Percentages:

<u>Period</u>	<u>Weekdays</u>	<u>Saturdays</u>	<u>Sundays & Holidays</u>
1	70%	30%	15%
2	75%	35%	20%
3	80%	40%	25%

4. Number of Days:

52

	<u>Period 1</u>	<u>Period 2</u>	<u>Period 3</u>
Weekdays	130	250	250
Saturdays	25	50	50
Sundays & Holidays	32	65	65

5. No Property Taxes

6. Operator's Management Fee = 6.5% of Gross Revenues

7. Average Daily Parking Rates:

<u>Period 1</u>	<u>Period 2</u>	<u>Period 3</u>
3.00	3.50	4.00

8. Inflation Factor = 10%

9. Buildings #33, 34, 36, 38 and 39 will begin office and retail operations in 6/84.

10. Building #149 will begin office operations in 6/85.

11. Total Spaces:

<u>Period 1</u>	<u>Period 2</u>	<u>Period 3</u>
1150	1550	1550

1. Occupancy Factor:

$$\begin{aligned}
 & (\text{Weekday Occupancy \%} \times \text{Days}) \\
 & + (\text{Saturday Occupancy \%} \times \text{Days}) \\
 & + (\text{Sunday \& Holiday Occupancy \%} \times \text{Days}) \\
 & \hline
 & = \text{Occupancy Factor}
 \end{aligned}$$

<u>Period</u>	<u>Weekday</u>	<u>Days</u>	<u>Sat</u>	<u>Days</u>	<u>Sun & Hol</u>	<u>Days</u>	<u>Factor</u>
1	50%	130	20%	25	10%	32	73.2
2	70%	250	35%	50	20%	65	205.5
3	80%	250	40%	50	25%	65	236.25

2. Gross Revenues: Occupancy Factor x Daily Rate x Spaces = Gross Revenues

<u>Period</u>	<u>Occupancy Factor</u>	<u>Daily Rate</u>	<u># Spaces</u>	<u>Gross Revenue</u>
1	73.2	3.00	1150	252,540
2	205.5	3.50	1550	1,114,838
3	236.25	4.00	1550	1,464,750

3. Operating Expenses: Operating Expenses (\$/Space/Day)

$$\begin{aligned}
 & \times \text{Spaces} \\
 & \times \text{Days} \\
 & \hline
 & = \text{Operating Expenses}
 \end{aligned}$$

<u>Period</u>	<u>(\$/Space/Day)</u>	<u>Spaces</u>	<u>Day</u>	<u>Operating Exp.</u>
1	1.32	1150	182.5	277,035
2	1.45	1550	365	820,337
3	1.60	1550	365	905,200

4. Net Income: Gross Revenues - Operating Expenses = Net Income

<u>Period</u>	<u>Gross Revenues</u>	<u>Operating Expenses</u>	<u>Net Income</u>
1	252,540	277,035	(24,495)
2	1,114,838	820,337	294,501
3	1,464,750	905,200	559,550

5. Management Fee: Gross Revenues x Management Fee % = Management Fee

<u>Period</u>	<u>Gross Revenues</u>	<u>Management Fee %</u>	<u>Management Fee</u>
1	252,540	10%	25,254
2	1,114,838	10%	111,484
3	1,464,750	10%	146,475

6. Net Income After Management Fee for Available Debt:

Net Income
- Management Fee
= Net Income Available for Debt (NI for Debt)

<u>Period</u>	<u>Net Income</u>	<u>Management Fee</u>	<u>NI for Debt</u>
1	(24,495)	25,254	(49,949)
2	294,501	111,484	183,017
3	559,550	146,475	413,075

Private financing of the garage is precluded due to the lack of cash flow from the garage operation. This necessitates the utilization of UDAG in the amount of \$6,850,000 for the garage construction. Excess proceeds would be disbursed to the BRA for the operation and maintenance of the Navy Yard project.

Office Proforma

25

Operating Expense and Real Estate Tax Detail

Insurance @ \$.05/SF x 500,000 SF	\$25,000
Common Area Electricity (500,000 x .50)	250,000
HVAC (500,000 x 1.25)	625,000
Maintenance and Common Area Cleaning (500,000 x .50)	250,000
On Site Superintendent	25,000
Management	50,000
Miscellaneous	<u>25,000</u>

Total Operating Expenses: \$1,250,000

= \$2.50/SF

Real Estate Tax:

It has been estimated that the real estate tax would be \$1.50/SF

BRA Lease:

The developer would enter into a 99 year subordinated lease with the BRA for the office space in building 149 at a rate of \$1.00/SF. This is equivalent to \$500,000 per annum.

Proposed Tenant Lease Terms

76

Rent: \$12.00 Per Square Foot*

Lease Term: 5 Years

Renewals: Based on CPI or then Current Market Rental at Time
of Renewal

Landlord Pays: Real Estate Taxes up to \$1.50 PSF
Operating Expenses up to \$2.50 PSF
BRA Lease up to \$1.00 PSF

Tenant Pays: Electricity
Janitorial
Real Estate Taxes Above \$1.50 PSF
Operating Expenses Above \$2.50 PSF
BRA Lease Above \$1.00 PSF

Parking Spaces: To Be Allocated on the Basis of Two (2) Spaces
per 1,000 Square Feet of Rented Space

*Per Discussions with and the Guidance of the Coldwell-Banker Co.

Projected Income Available for Debt Service
(Assuming 500,000 Rentable Square Feet of Office Space)

37

Income:

500,000 SF x \$12 PSF	\$6,000,000
Less: Vacancy @ 10%	<u>(600,000)</u>
	\$5,400,000

Expenses:

Real Estate Tax @ \$1.50 PSF (Stopped)*	750,000
Operating Expenses @ \$2.50 PSF (Stopped)*	<u>1,250,000</u>
	\$2,000,000

<u>Available for Debt Service:</u>	\$3,400,000
------------------------------------	-------------

*Tenant Carries Cost Exceeding the Base Rate

Project Cost Summary

53

Construction, Demolition and Rehabilitation:	\$17,354,400
Architect and Engineering:	870,000
Legal and Accounting:	175,000
Mortgage Placement:	250,000
Interest During Construction:	3,000,000
Marketing and Brokerage:	1,000,000
Administrative Cost:	900,000
Contingency:	<u>800,000</u>
<u>TOTAL PROJECT COST</u>	\$24,349,400

Sources and Uses of Funds

Uses

Direct Costs:

Land and Building Shell (Subordinated Leasehold)	\$	----
Construction		17,354,400

Indirect Costs:		<u>6,995,000</u>
-----------------	--	------------------

TOTAL USE OF FUNDS		\$24,349,400
--------------------	--	--------------

Sources

UDAG		3,500,000
Proposed Construction Loan		18,849,400
Equity		<u>2,000,000</u>
		\$24,349,400

Loan Analysis

Loan/Sq Ft: \$37.70/Sq Ft of Gross Rentable Area

Loan/Value: 82% of Economic Value of \$23,000,000
Based on Capitalizing Proforma Net Operating
Income of \$3,400,000 at 15%

Loan/Cost: 77% of the Total Project Cost

Mortgage Information:

Amount of Financing: \$19,000,000
Interest Rate: 15%
Term: 30 years

Monthly Debt Service: 240,245

Annual Debt (Mortgage): 2,882,942

Annual Leasehold Payments to BRA: 500,000

TOTAL ANNUAL DEBT SERVICE: \$ 3,382,942

NET INCOME AVAILABLE FOR
DEBT SERVICE: \$3,400,000

DISTRIBUTION TO DEVELOPER \$17,058

Developer's Statement

41

The Developer is prepared to enter into a 99 year subordinated lease with the BRA based on the terms of this proposal. Payment of the City of Boston real estate taxes and the BRA lease would be predicated on the rate of tenant occupancy of Building #149. Specifically, as a tenant commences payment of the office lease to the Developer, the Developer would begin payment of real estate tax to the city and building lease to the BRA. The Developer would not be liable for payment of real estate taxes and building lease until a tenant is in place.

Tenant Considerations

Determining tenant square footage is a process of compromise, weighing the value of office and retail use against the value of parking for that office and retail space. First, it was determined that the Steffian and Bradley solution contained a significant shortage of parking spaces ($752 - 500$ for adj. retail = 252, $252 \div 900$ thousand SF = .0025 cars per thousand SF). Since the B.R.A. requested 2.5 cars per 1000 SF, the Steffian and Bradley proposal would require the construction of an additional parking structure elsewhere on a site which already has a tremendous excess of built square footage.

On examining some of the 900,000 square feet of proposed office space, we found that at least half of the 400,000 SF space in Building #199 had such low head room that it may never be leasable as office space. The premium cost of providing air conditioning to each bay would not be cost beneficial for the rents anticipated for the space. Also the oppressive psychological effect of low head room would further depress the market value below cost.

This suggested that at least the east half of Building #199 be used as parking. However the cost of ramping up nine floors is much easier to justify with full floors of parking than just half floors. Finally, the more space that is dedicated to parking, the less there is available for office use in Building #199, generating insignificant rents to offset the high costs of elevators, HVAC, plumbing and electrical cores in that building.

Even with all of Building #199 and part of four floors in Building #149 as parking, the car to office ratio is only 2.1 per thousand SF ($1550 - 500 = 1050$, $1050 \div 500$ thousand SF = 2.1 cars per thousand SF), which is still below the B.R.A. recommended ratio of 2.5 per thousand SF, but within a reasonable market range recommended by our market consultants.

We conclude, therefore, that 500,000 SF of commercial and retail space combined with a 1550 car parking garage is the highest and best use for these two buildings.

GENERAL SPECIFICATIONS

Total Area: 500,000 sq. ft.

Typical Floor
Rentable Area: 76,500 sq. ft.

Elevators: 6 Elevators, 2 Freights

SPECIFICATIONS OF TENANT IMPROVEMENT

Main Lobby:	Floor surfaced in quarry tile; walls covered in vinyl; accent lighting.
Tenant Lobbies:	Floor surfaced in carpet; walls painted; accent lighting.
Building Graphics:	Main Directory - Dark bronze, aluminum frame with backlit tenant identification.
	Tenant Lobby Directories - Dark bronze acrylic frame with tenant identification on acrylic panels.
	Tenant Entry - Acrylic nameplate mounted on oak panel in side-lite.
Rest Rooms:	Ceramic tile floor and walls; ceiling hung partitions; plastic laminate countertops with inset sinks.
Mechanical System:	Each floor split into zones with separate heat pumps to provide heating, ventilating, and air conditioning.
Tenant Entrance Doors:	Custom milled, full-height, hardwood door set in hardwood frame with tempered glass side-lite.
Doors Within Tenant Premises:	Full-height solid core, hardwood veneer.
Partitions:	Sound insulated.
Ceiling:	Suspended acoustic tile.
Lighting:	2' x 4' recessed fluorescent, ultra-low-brightness ceiling fixtures with anodized aluminum parabolic reflectors.
Security:	24 hour building and parking control security.

Appendix A
Construction Costs

Office Construction Costs

44

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

-5

PROJECT Constitution Office Park - Office

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: ----

ITEM	QTY.	UNIT PRICE	TOTAL
1. Demolition			125,000
2. Concrete/Parking Garage			40,000
3. Thermal and Moisture Protection			258,000
4. Doors and Windows			775,000
5. Interior			850,000
6. Finishes			1,250,000
7. Elevators			864,000
8. HVAC			3,500,000
9. Electrical			4,000,000
10. Plumbing			2,000,000
11. Fire Protection			800,000
			<u>\$14,462,000</u>
Contingencies @ 10%			1,446,200
OH&P 20%			2,892,400
TOTAL			\$18,800,600

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

46

PROJECT Constitution Office Park - Office

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 1

ITEM	QTY.	UNIT PRICE	TOTAL
<u>DEMOLITION</u>			
1. Remove existing elevators shaft to remain	12 ea.	\$5,000/ea.	\$60,000
2. Remove portions of existing loading dock and prepare for new handicap entry	112 LF 640 SF	1.33/LF 2.15/SF	150 1,376
3. Remove existing windows	1012	48/ea.	48,576
4. Remove exterior elevator	L/S		<u>15,000</u>
TOTAL			\$125,102

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

47

PROJECT Constitution Office Park - Office DATE 9/27/82

PROJECT NO: 8209.01 PAGE NO: 2

ITEM	QTY.	UNIT PRICE	TOTAL
<u>CONCRETE/PARKING GARAGE</u>			
1. Slab over existing openings	2,000 SF	\$20 SF	\$40,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

43

PROJECT Constitution Office Park - Office

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 3

ITEM	QTY.	UNIT PRICE	TOTAL
<u>THERMAL AND MOISTURE PROTECTION</u>			
1. Reroofing w/single ply membrane and new insulation W = .07	80,000 SF	\$2.50/SF	\$200,000
2. Rigid insulation around inside of exterior wall	76,624 SF	\$.75/SF	<u>57,468</u>
TOTAL			\$257,468

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

49

PROJECT Constitution Office Park - Office DATE 9/27/82

PROJECT NO: 8209.01 PAGE NO: 4

ITEM	QTY.	UNIT PRICE	TOTAL
<u>DOORS AND WINDOWS</u>			
1. New exterior metal windows w/ insulating glass	614	800	\$491,200
2. New metal entry doors	52 prs.	2,800	145,600
3. Tenant entry doors	30	600	18,000
4. Tenant doors	500	200	100,000
5. Skylight	LS		<u>20,000</u>
TOTAL			\$774,800
			USE \$775,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

50

PROJECT Constitution Office Park - Office DATE 9/27/82

PROJECT NO: 8209.01 PAGE NO: 5

ITEM	QTY.	UNIT PRICE	TOTAL
<u>DRYWALL</u>			
1. Tenant demising partition	10,000 LF	\$32	\$320,000
2. Tenant partition finished	15,000 LF	\$18.80/LF	282,000
3. Exterior wall treatment	76,624 SF	1.39/SF	106,507
4. New toilet rooms	3156	\$25.40	80,172
5. Toilet partitions	LS		30,000
6. Toilet accessories	LS		<u>30,000</u>
TOTAL			\$848,679
			USE \$850,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

51

PROJECT Constitution Office Park - Office

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 6

ITEM	QTY.	UNIT PRICE	TOTAL
<u>FINISHES</u>			
1. Carpet	60,000 SY	\$18/SY	\$1,080,000
2. Quarry tile--common area	10,000 SF	\$5.00/SF	50,000
3. Ceramic floor tile in toilets	8,000 SF	\$2.70/SF	21,600
4. Ceramic wall tile in toilets	20,000 SF	\$2.50/SF	50,000
5. Plaster ceiling in toilets	8,000 SF	\$1.25	10,000
TOTAL			\$1,211,600
			USE \$1,250,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

52

PROJECT Constitution Office Park - Office DATE 9/27/82

PROJECT NO: 8209.01 PAGE NO: 7

ITEM	QTY.	UNIT PRICE	TOTAL
<u>ELEVATORS</u>			
4 passengers @ 8 stories	4	96,000	\$384,000
2 passengers @ 10 stories	2	120,000	240,000
2 freight @ 10 stories	2	120,000	<u>240,000</u>
TOTAL			\$864,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

PROJECT Constitution Office Park - Office

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 8

ITEM	QTY.	UNIT PRICE	TOTAL
<u>MECHANICAL SYSTEMS</u>			
1. Electrical	500,000	\$7.60/SF	\$3,800,000
2. Plumbing	500,000	\$3.85/SF	1,925,000
3. Fire Protection	500,000	\$1.43/SF	715,000
4. HVAC	500,000	\$6.90/SF	<u>3,450,000</u>
TOTAL			\$9,890,000

Garage Construction Costs

54

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

55

PROJECT Constitution Office Park - Garage DATE 9/27/82

PROJECT NO: 8209.01 PAGE NO: ----

ITEM	QTY.	UNIT PRICE	TOTAL
1. Demolition			315,000
2. Concrete			3,000,000
3. Thermal and moisture protection			105,000
4. Elevators			225,000
5. Finishes and Specialties			132,000
6. Mechanical			959,000
			4,736,000
Contingencies @ 10%			473,600
OH&P @ 15%			710,400
TOTAL			\$5,920,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

PROJECT Constitution Office Park - Garage

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 1

ITEM	QTY.	UNIT PRICE	TOTAL
<u>DEMOLITION</u>			
1. Remove existing elevators	4	\$5000/ea.	\$20,000
2. Remove existing stairs	LS		8,000
3. Remove concrete slab for new parking ramps	1700 LF saw cut	1.50/LF	2,550
4. Remove existing windows	208	60/ea.	12,480
5. Remove portions of existing loading dock for new entry	LS	7000	7,000
6. Remove existing brick infill @ windows	250	1000/ea.	<u>250,000</u>
TOTAL			\$315,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

57

PROJECT Constitution Office Park - Garage

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 2

ITEM	QTY.	UNIT PRICE	TOTAL
<u>CONCRETE</u>			
1. New ramps	3840 SF	\$20/SF	76,800
2. New parking drum	14733/SF/ Story	20/SF/Story	2,651,940
3. Slab over existing openings	2000 SF	\$20/SF	40,000
4. New bridges	LS		100,000
5. New floors	68,000 SF	\$20/SF	136,000
TOTAL			\$3,004,740
			USE \$3,000,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

52

PROJECT Constitution Office Park - Garage

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 3

ITEM	QTY.	UNIT PRICE	TOTAL
<u>THERMAL AND MOISTURE PROTECTION</u>			
1. Reroofing w/ single ply membrane	67860	1.50/SF	101,790
TOTAL			\$101,790
			USE \$105,000

PSI

Architects
286 Congress Street
Boston MA 02210
(617) 482-5489

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

5-9

PROJECT Constitution Office Park - Garage

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 4

ITEM	QTY.	UNIT PRICE	TOTAL
<u>DOORS</u>	LS		10,000
<u>ELEVATORS</u>			
1. 2 passengers @ 9 stories	2	108,000	<u>216,000</u>
TOTAL			\$226,000
			USE \$225,000

PSI

Architects
286 Congress Street
Boston, MA 02210
(617) 482-5489

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

60

PROJECT Constitution Office Park - Garage

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 5

ITEM	QTY.	UNIT PRICE	TOTAL
<u>SPECIALTIES</u>			
1. Striping and identification	1300 stalls	\$3/stall	3,900
2. Card control system	3	\$2000	6,000
3. Guard rails	170 windows	500/ea.	85,000
4. New stairs	180 r.	135/ea.	24,300
TOTAL			\$131,545
			USE \$132,000

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

GENERAL ESTIMATE

61

PROJECT Constitution Office Park - Garage

DATE 9/27/82

PROJECT NO: 8209.01

PAGE NO: 6

ITEM	QTY.	UNIT PRICE	TOTAL
<u>MECHANICAL SYSTEMS</u>			
1. Electrical (single light fixture, reuse present electric .0225/SF)	757,940		750,000
2. Fire Protection	LS		<u>200,000</u>
TOTAL			\$950,000

Appendix B

Specifications

OUTLINE SPECIFICATION

FOR

CONSTITUTION OFFICE PARK

CHARLESTOWN, MASSACHUSETTS

Priestley/Sterling, Inc. Architects
286 Congress Street
Boston, Massachusetts

TABLE OF CONTENTS

SECTION 01000	ALTERNATES
SECTION 01020	ALLOWANCES
SECTION 01100	MISCELLANEOUS GENERAL REQUIREMENTS
SECTION 02000	SITWORK
SECTION 03000	CONCRETE
SECTION 05000	STRUCTURAL STEEL
SECTION 05500	MISCELLANEOUS METAL AND METAL FABRICATIONS
SECTION 06100	CARPENTRY
SECTION 07400	EXTERIOR WALL FINISH
SECTION 07520	SINGLE PLY MEMBRANE ROOFING AND FLASHING
SECTION 07900	SEALANTS
SECTION 08100	HOLLOW METAL DOORS AND FRAMES
SECTION 08400	ALUMINUM ENTRANCES AND WINDOWS
SECTION 08700	FINISH HARDWARE
SECTION 08800	GLASS AND GLAZING
SECTION 09250	DRY WALL CONSTRUCTION
SECTION 09300	CERAMIC AND QUARRY TILE
SECTION 09500	ACOUSTICAL CEILING
SECTION 09650	RESILIENT FLOORING
SECTION 09680	CARPET
SECTION 09900	PAINTING
SECTION 10000	MISCELLANEOUS BUILDING SPECIALTIES
SECTION 14200	ELEVATORS

SECTION 01000

ALTERNATES

- A. Under the Base Bid, Drywall Construction provides for finishing with joint compound and tape. Under this alternate, Drywall Construction is to be blue board with skim coat of plaster.
- B. Under the Base Bid, Glass and Glazing calls for clear PPG window. Under this alternate, Glass is to be reflective PPG window.

SECTION 01020

ALLOWANCES

- A. Refer to Section 09680 Carpet. \$18/sq. yd. for carpet to purchase and install.
- B. Refer to Section 14200 Elevators. \$12,000/cab for finishes.

SECTION 01100MISCELLANEOUS GENERAL REQUIREMENTS

- A. Provide all shoring, bracing, and supports as required to complete all work.
- B. All patching of existing slabs, walls, roofs, etc. are to be done neatly to the satisfaction of the Architect and, unless otherwise noted, are to match the material and finish of the adjacent materials.
- C. Building and Tenant Standards are to be as follows:
 - 1. Typical interior tenant partition: 2 1/2" metal studs at 16" O.C. to underside of structure above with 5/8" gypsum board both sides. Provide 4" high vinyl or rubber base each side per Section 09650 Resilient Flooring. Finish partition as per Section 09250 Drywall Construction ready for painting.
 - 2. Typical demising partition: 3-5/8" metal studs at 16" O.C. to underside of structure above with 5/8" gypsum board and 1/2" soundboard on both sides with 3-1/2" unfaced friction fit sound batt insulation between studs. Provide 4" high vinyl or rubber base each side per Section 09650, Resilient Flooring. Finish partition as per Section 09250, Drywall Construction ready for painting.
 - 3. Typical tenant interior door: 3'-0" wide x 7'-0" high solid core wood doors with rotary sliced red oak veneer and hardwood stiles.
 - 4. Tenant entry: 3'-0" wide x 8'-0" high solid core wood doors with rotary sliced red oak veneer and hardwood stiles. Provide red oak door frame with side light.
 - 5. Refer to Section 09900, Painting for finish of doors and frames.
 - 6. Refer to Section 08700, Hardware, for hardware standards for tenant doors and entries.
 - 7. Quantities for each of the above are as follows:
 - typical tenant interior partition: 1 lin. ft. of partition for each 14 sq. ft. of Net Rentable Area.
 - typical tenant demising partition: 1 lin. ft. of partition for each 150 sq. ft. of Net Rentable Area.
 - tenant interior doors: 500 door assemblies.
 - tenant entry doors: 30 door assemblies.

12

SECTION 02000

SITework

- A. Sitework shall include, but not be limited to:
 - 1. Selective demolition of existing concrete loading dock.
 - 2. New entry stairs and ramps for handicapped.
 - 3. New landscaping.
 - 4. New ramps for parking garages.
 - 5. New paving and exterior lighting.
 - B. Underground utilities have previously been provided and installed. However, this Contractor is responsible for verifying all of these existing conditions and furnishing and installing all work from this point to the building as required.
-

SECTION 03000CONCRETE

A. Foundations:

1. Structural steel columns shall bear on reinforced concrete spread footings. Exterior walls shall bear on a concrete foundation wall which shall be supported by a continuous wall footing below the frost line. All footings shall bear on undisturbed granular soil or controlled compacted fill having a minimum allowable bearing capacity of 4,000 pounds per square foot.
2. Concrete shall have a minimum compressive strength of 3000 psi at the end of 28 days.
3. Reinforcing steel shall be A615, grade 60.
4. All exposed to view foundation walls shall be rubbed.

B. Floor:

1. Slab construction shall consist of 5" concrete reinforced with a 6 x 6 - 10/10 welded wire mesh.
2. Concrete shall have a minimum compressive strength of 3000 psi at the end of 28 days.
3. Concrete slabs shall receive a smooth hard steel trowel finish and two coats of sealer hardener.
4. Where new slabs are required to fill existing openings, provide steel supports and reinforcing to anchor new slab to existing adjacent surfaces.

SECTION 05000STRUCTURAL STEEL

- A. Structural steel shall consist of providing steel columns, beams, girders, etc. for new bridge connecting the two buildings, and other areas as required.
- B. Structural steel shall conform to ASTM A-36, shall be shop primed, and shall be erected in strict accordance with the "Code of Standard Practice" of the American Institute of Steel Construction. All bolts shall be high strength as per ASTM A-325. All welding shall conform with AWS Specifications.
- C. Joists shall conform to "The Standard Specifications for Open Web Steel Joists" of the Steel Joist Institute. Joists shall be shop-primed.
- D. Steel decking for roof shall be 1-1/2" deep, 20 gauge, and shall have a grey prime coat.

MISCELLANEOUS METAL AND METAL FABRICATIONS

- A. All steel shall conform to the "Specifications for Structural Steel" (ASTM A-36).
- B. Steel shall receive one coat of shop paint 2 mils thick, after being power-wire-brush cleaned of loose material. Prime paint shall be gray Tnemec 1009, or equal.
- C. Steel shall be well formed to size and shape, with sharp lines or angles. Shearing or punching shall leave clean, true lines or surfaces. Weld permanent connections. Do not use screw or bolts where they can be avoided; where used, screws shall be Philips head type, heads countersunk, screwed up tight with threads nicked to prevent loosening.
- D. Welding shall conform to the best modern practice, of adequate strength and durability, with jointing made tight, flush in true plane with base metals, clean and smooth.
- E. Exposed work shall be finished smooth, even, with close joints and connections. Exterior joints and connections shall be formed to exclude water.
- F. Work shall include, but not be limited to:
 - 1. lintels
 - 2. pipe railings
 - 3. ladders
 - 4. metal pan stairs
 - 5. Unistrut framing for metal toilet partitions.
 - 6. Unistrut framing for ceiling hung mechanical equipment
 - 7. miscellaneous shapes for Architectural work.

SECTION 06100

CARPENTRY

- A. Lumber for studs, blocking, furring, nailers, etc. to be WWPA Utility Economy, Stud or Construction Grade. Apply brush coat of Cuprinol at all roof blocking.
- B. Finish Carpentry shall conform to Architectural Woodwork Institute Custom Grade.
- C. Work shall include, but not be limited to:
 - 1. tenant doors and entries
 - 2. site furniture
 - 3. railings

SECTION 07520SINGLE PLY MEMBRANE ROOFING AND FLASHING

- A. Existing roofs are to be thoroughly swept of all debris, gravel, etc. prior to application of new roof. Remove all existing flashings, wood blocking, etc. which will interfere with application of new roofing.
- B. Roofing system: loose laid single-ply elastomeric membrane, Trolcal S or Carlisle EPDM Sure-Seal. Membrane shall be ballasted in place with smooth river-washed gravel, applied at the rate of 10 lbs/sq. ft.
- C. Insulation: boottom layer glass-fiberboard, Owens-Corning Fiber-glass Roof Insulation or equal; top layer, wood fiber board, with preformed cant and eave strips. U-factor: .05.
- D. Provide accessories as required including bonding, adhesive, splicing cement, lap sealant, tape, water, cut-off mastic, etc. as supplied by the manufacturer for a complete installation.
- E. Flash typical roof penetrations with material matching roof membrane, securely bonded in place.
- F. Metal flashing shall be copper or galvanized sheet steel with PVC finish, as recommended by manufacturer.
- G. Provide 10 year guarantee of roofing material.

SECTION 07900SEALANTS

- A. Sealants at exterior joints: one or two part polysulfide or polyurethane, complying with FS TTS-230C or FS-TTS-227E, Tremco Lastomeric or Dymeric or equal.
- B. Sealants at interior joints: butyl rubber type complying with FS-TTS1657, Type 1, Tremco Butyl Sealant or equal.
- C. Install foam rod or strip back-up material in joints in which no other back-up exists before installing sealant.
- D. Install sealant with hand or power gun, pushed along joint. Sealant shall completely fill joint void. Tool surface to slightly concave surface and clean adjacent surfaces after completion.

SECTION 08100HOLLOW METAL DOORS AND FRAMES

- A. Hollow metal doors shall be 1-3/4" thick hollow metal, flush type, fully welded construction with no visible joints on face edges, structural honeycomb core, Steelcraft "L" series or equal. Minimum face gauge: 16 ga. exterior, 18 ga. interior.
- B. Frames:
 - 1. Minimum 16 ga. steel interior, 14 ga. exterior, Steelcraft "F" series or equal., except provide Steelcraft "DW" series or equal at drywall partitions.
 - 2. Corner joints shall be knock-down type, field assembled with neat hairline corner miter joints.
 - 3. Provide manufacturer's recommended anchors, minimum of 3 per jamb, two at hinges, one at strike, plus base anchor.
 - 4. Factory installed silencers: 3 per strike jamb, 2 per head for pairs of doors.
- C. Design, construction, materials, and shop primer of hollow metal doors and frames shall comply with Steel Door Institute Publications SDI-100 and SDI-107. Exterior shall be zinc-coated.

SECTION 08400ALUMINUM ENTRANCES AND WINDOWS

- A. Aluminum window system is to be 2600 Series exterior glazed with thermal separator as manufactured by Alumiline Corporation or approved equal.
- B. Aluminum entry system is to be 4500 Series as manufactured by the Alumiline Corporation or approved equal.
- C. Entry doors are to be Narrow Stile Door by Alumiline Corporation including push bar, pull handle, security dead lock, offset pivot, weatherstripping, threshold, and closer.
- D. Finish on all aluminum is to match. Members are to be fabricated from 6063-TS aluminum alloy.
- E. Skylight system is to be 2600 SW thermally broken slope wall system series by Alumiline Corporation or approved equal. Skylight system is to be installed on existing sloping roof truss system. Manufacturer is to supply all anchoring clips and anchors, as well as verifying condition of existing trusses.

SECTION 08700FINISH HARDWARE

- A. Supplier shall have an established place of business offering builder's hardware with supply of replacement parts for proposed brand of hardware.
- B. Supplier shall have in his employ a member of American Society of Architectural Hardware Consultants (AHC) who shall prepare complete hardware and keying schedules in consultation with the Owner, and shall check installation at completion of job. Provide types and sizes of hardware appropriate for door location and use, and required by codes.
- C. Acceptable manufacturers:
 - 1. Locks: Schlage, General Lock, Yale, Russwin, Corbin, Sargent, Best.
 - 2. Hinges: Stanley, Hager, Mc Kinney, Lawrence.
 - 3. Closers: LCN, Norton, Reading.
 - 4. Push, pulls, wall and floor stops, miscellaneous: Ives, Stanley, Baldwin, Glynn-Johnson, Burns, Builders, Brookline.
 - 5. Thresholds, weatherstripping: Reese, Zero, Pemko.
- D. Hardware shall comply with requirements of ANSI 156 Series.
- E. Finish to be US26D dull chrome, except closers which shall be aluminum lacquer.
- F. Locksets, latchsets and closers shall be heavy duty. Hinges shall be full ball bearing. Locksets to be lever type with circular rose.
- G. Provide thresholds, weatherstripping, closers, and latchguards at all exterior doors.

SECTION 08800GLASS AND GLAZING

- A. Comply with recommendations of "Glazing Manual" and "Glazing Sealing Systems Manual" published by Flat Glass Marketing Association.
- B. Acceptable manufacturers: L-O-F, PPG, Guardian, American Saint-Gobain.
- C. Typical exterior glazing shall be 1" insulating glass, consisting of two 1/4" layers of clear glass separated by a 1/2" air space, PPG window or equal.
- D. Provided tempered or laminated glass in sidelights, entrances, etc. where required by code.
- E. Interior glass shall be 1/4" clear plate.
- F. Install in accordance with referenced publication of FGMA and glass manufacturer's instructions. Set all glass in a three plane, tight and straight, with proper and adequate clearance, firmly anchored to prevent rattling and looseness, with all edges clearly cut. Do not nip or seam edges of tempered glass.

SECTION 09250DRYWALL CONSTRUCTION

- A. Acceptable Manufacturers: USG, Gold Bond, Georgia-Pacific
- B. Metal Studs: use 25 ga. at interior, 20 ga. at exterior
 - 1. USG Steel Studs 212 ST, 358 ST and 400 ST.
 - 2. USG Steel Runners 212 CR, 35B CR and 400 CR.
 - 3. USG Metal Furring Channels and Clips.
 - 4. USG Z-Furring Channels.
 - 5. USG Adjustable Wall Furring Brackets.
- C. Gypsum Wallboard:
 - 1. 5/8" thick, 48" wide Sheetrock Brand Regular Gypsum panels.
 - 2. 5/8" thick, 48" wide Sheetrock Brand Foil Back Gypsum panels at exterior walls.
 - 3. 5/8" thick, 48" wide Sheetrock Brand Firecode Gypsum panels.
- D. Use 1/2" thick soundboard as a back-up on tenant demising partitions.
- E. Use 1/2" thick wonderboard as a substrate for walls receiving ceramic tile or surrounding toilet areas.
- F. Shaft Wall System to be USG Cavity Shaft Wall System consisting of:
 - 1. 1" USG Gypsum Shaft Wall Liner, bevelled edge, 24" wide.
 - 2. Faceboard: 1/2" thick, 48" wide, Sheetrock Brand Firecode "C" Gypsum Panel.
 - 3. Gypsum base: 1/2" thick, 48" wide, Imperial Firecode "C" Gypsum Base.
 - 4. USG Steel C-H Studs.
 - 5. USG Steel J-Runner.
 - 6. USG Steel E-Stud.
- G. Apply galvanized metal casings where wallboard abuts dissimilar materials.
- H. Insulation: Unfaced friction fit glass-fiber blanket by Owens-Corning, Certainteed, Johns-Manville.

SECTION 09300CERAMIC AND QUARRY TILE

- A. Acceptable manufacturers ceramic tile: American Olean, Romany Spartan, Mid-State, Monarch.
- B. Acceptable manufacturer quarry tile: Dennis Ruabon "Heatherbrown" as distributed by Shep Brown Co.
- C. Provide ceramic floor tile with coved wall base in toilets. Floor tile to be 2" x 2" porcelain ceramic mosaic tile as manufactured by American Olean Tile Co. or equal. Selection to be from full range of color chart 0-1.
- D. Ceramic wall tile to be 4-1/4" x 4-1/4" matte glazed tile as manufactured by American Olean Tile Co. or equal. Selection to be from full range of manufacturers colors.
- E. Quarry tile to be 6" x 6" x 5/8" shot face Heatherbrown Quarry Tile.
- F. All tile to be installed in a thin set method using an adhesive and grout per manufacturers recommendations.
- G. Provide all trim necessary for finished installation including cove base at floors, matching wall tile where both wall and floor tile are used. Where floor tile terminates at dissimilar material, under doors, provide bullnose floor tile.

SECTION 09650RESILIENT FLOORING

- A. Materials shall be uniform in thickness and size with edges cut accurately and square, of uniform color with variations in variegated patterns kept to a minimum.
- B. Acceptable manufacturers: Armstrong, GAF, Kentile, Azrock, Flintkote, Nafco, Pirelli.
- C. Raised rubber tile: install raised rubber tile on stair landings, platforms, and stair treads. Use 2.7 mm HP (High Performance) low Profile Stud as manufactured by Jason/Pirelli.
- D. Base: 4" high straight rubber or vinyl base where carpet abuts gypsum wallboard. Provide tapered edge strip where carpet does not terminate against a wall.
- E. Primers, adhesives, underlayment, cleaners, finishing materials shall be as per manufacturer's recommendations.

SECTION 09680CARPET

- A. Acceptable manufacturers: Lees, Bigelow, Armstrong, Mohawk, Collins and Aikman, Milliken, Gulistan, Stratton, Wellco.
- B. Finished installation shall have a flame-spread rating of 200 or less, smoke density rating of 200 or less, per ASTM E84, in compliance with provisions of Section 920.5.2 Massachusetts State Building Code, and policy directive by Massachusetts Department of Public Safety issued September 22, 1971, governing allowable flame spread and smoke density for given occupancies.
- C. Carpet shall be tufted-type, level-loop, static-resistant Antron III face yarn, primary and secondary backing of jute and/or polypropylene, 28 oz. face weight minimum. Install by direct glue down method using manufacturer's recommended adhesive.
- D. Install edge strip wherever carpet edge does not abut vertical surface.

79

SECTION 09900

PAINTING

- A. Field finish all exposed-to-view surfaces of newly-installed gypsum wallboard, doors and frames, ferrous metal, existing surfaces as called for, mechanical equipment installed on site and on roof.
- B. Acceptable manufacturers: Pratt and Lambert, Fuller-O'Brien, California, Tnemec, DeVoe, Sherwin-Williams, PPG, Benjamin Moore. All paints used shall be manufacturer's top quality commercial type.
- C. Use following paints at specified materials:
 - 1. Metal: 2 coats alkyd semi-gloss.
 - 2. Interior gypsum wallboard: primer and 2 coats alkyd, egg-shell, or satin finish.
 - 3. Exposed structure: 1 coat spray applied alkyd, Tnemec Uni-Bond.
 - 4. Epoxy Paint: 2 coats two-part semi-gloss epoxy, Tnemec Series 66 Epoxoline.
 - 5. Clear finished wood: 2 coats alkyd, or polyurethane varnish, glossy finish.
- D. Apply paint with suitable brushes, rollers, and spraying equipment. Rate of application shall not exceed paint manufacturer's recommendations. Keep application equipment clean, dry, free from contaminants. Comply with recommendations of product manufacturer for drying time between succeeding coats.

SECTION 10000

MISCELLANEOUS BUILDING SPECIALTIES

- A. Toilet partitions to be ceiling hung, sheet steel laminated to sound deadening core, plastic laminate finish. Provide coat hook with bumper and roll-type toilet paper holder at each compartment. Urinal screens shall be of matching construction. Acceptable manufacturer: Bobrick Series 1047 or equal.
- B. In each toilet room, provide surface-mounted mirror, recessed-paper towel dispenser and disposal units, recessed liquid soap dispensers, recessed sanitary napkin dispensers, toilet partition mounted napkin disposal units. Provide grab bars and tilt mirrors at handicapped toilets. All toilet room accessories shall be from one manufacturer: Bobrick or equal.
- C. Metal louvers shall be Construction Specialties Architectural Horizontal line louvers or equal. Finish to be selected from manufacturer's standard line.

SECTION 14200

ELEVATORS

- A. Acceptable manufacturers: Beckwith, Dover, Westinghouse, Otis, Payne, Montgomery.
- B. Elevator characteristics below are based on Otis Elevator.
 - 1. Type of machine: Geared Traction Machine
 - 2. Capacity: 3500 pounds
 - 3. Speed: 350 f.p.m.
 - 4. Operation: Automatic
 - 5. Control: Unit multi-voltage with two-way levelling
 - 6. Inspection Operation: Top of car inspection
 - 7. Machine location: Overhead on machine beams furnished and installed by Otis.
 - 8. Clear car inside: 6'-8" wide x 4'-9" deep
 - 9. Car door: Center opening 3'-6" x 7'-0" with retracting safety shoes
- C. All work shall be performed with all governing codes.

Appendix C
Master File Brochure

Ψ Ψ Ψ Priestley
Ψ Ψ Ψ Sterling
Ψ Ψ Incorporated

Ψ Architects

31

MASTER FILE BROCHURE

1. Prepared: April 20, 1982
2. Firm: Priestley Sterling Incorporated, Architects
286 Congress Street
Boston, Massachusetts 02210
(617) 482-5489
3. This firm has been in business for 2 years.
4. The firm is a corporation.
5. Officers: Chairman of the Board/Vice President:
John W. Priestley, Jr. AIA
Mass. Reg. # 1129
President:
William A. Sterling AIA
Mass. Reg. # 4790
6. Board of Directors:
John W. Priestley, Jr. - 50% Stock Owner
William A. Sterling - 50% " "
7. Other Architects:
Robert C. Nitishin AIA Mass. Reg. # 4945
Carl Peter Erickson AIA Mass. Reg. # 5032
8. There are three (3) Registered Architects on full time payroll.
9. There are no engineers employed by this firm.
10. There are six (6) technical employees full time. (3 Architects and 3 Designers)
11. There is one (1) Administrative full time employee.
12. This firm is categorized under Architects New Work and Architects Renovation Work.

PSI

Architects
286 Congress Street
Boston, MA 02210
(617) 482 5489

13. John W. Priestley, Jr. normally provides consulting on demand in both administrative and project design functions. His project design involvement is available at every level of Architectural service from concept development and strategy down to materials and methods of construction.

William A. Sterling is the Chief Executive Officer of the Corporation. He is the principal responsible for both office administration and project design and documentation.

PSI provides in house services in both architecture and interior design for commercial and institutional clients. The architectural services include the following:

- Development Feasibility Studies
- Zoning & Building Code Evaluations
- Preliminary Architectural Design
- Historic Designation Applications
- Presentations to Public Agencies
- Finance Documents
- Engineering Coordination
- Energy Reports
- Bid Documents
- Construction Documents
- Construction Administration
- Condominium Filing Documents

Interior Design services include:

- Corporate Programming
- Tenant Planning
- Furniture Selection
- Finish Selection
- Furniture & Finish Specifications
- Construction Documents
- Construction Administration

14. PSI staff members have worked with many different outside consultants and engineers including:

Sasaki Associates	Landscape Architects & Civil Engineers
Landscape Science & Design	Landscape Architects
Wayne Weaver Associates	Structural Engineer
John Born	Structural Engineer
Rene Mugnier	Structural Engineer
Anthony Sakakeeny	Structural Engineer
Robert Barstow	Mechanical Engineer
Progressive Consulting Eng.	Mechanical Engineers
C. A. Crowley	Mechanical & Electrical Engineers
R. G. Vanderweil	Mechanical & Electrical Engineers
Herosey Associates	Electrical Engineers
Vern Norman Associates	Electrical Engineers
Joseph Henry	Fire Safety Consultant
Group One	Kitchen Consultants
Harold Kalick	Kitchen Consultants
Estimating Services Assoc. Inc.	Cost Estimating Consultants
Analytical Systems Eng. Corp.	Security Program Consultants

15. Persons having financial interest in the firm are:

William A. Sterling
14 Morse Road
Wayland, MA 01778

John W. Priestley, Jr.
c/o Russia Wharf Co.
286 Congress Street
Boston, MA 02210

16. As of April 20, 1982 there are no existing contracts with public bodies.

17. Professional Liability Policy Certificate # EE 100089
Aggregate amount payable : \$100,000, Evanston Ins. Co.
Expiration date: August 10, 1982

18. I WILLIAM A. STERLING certify that I am familiar with the new Mass. State Building Code and also Mass. G.L., Chapter 149 Section 44A-44H, Section 44M, and Chapter 30, Section 39M.

Date 4/22/82 Signed William A. Sterling
William A. Sterling AIA
President

19. SUMMARY OF EXPERIENCE (1974-1982)

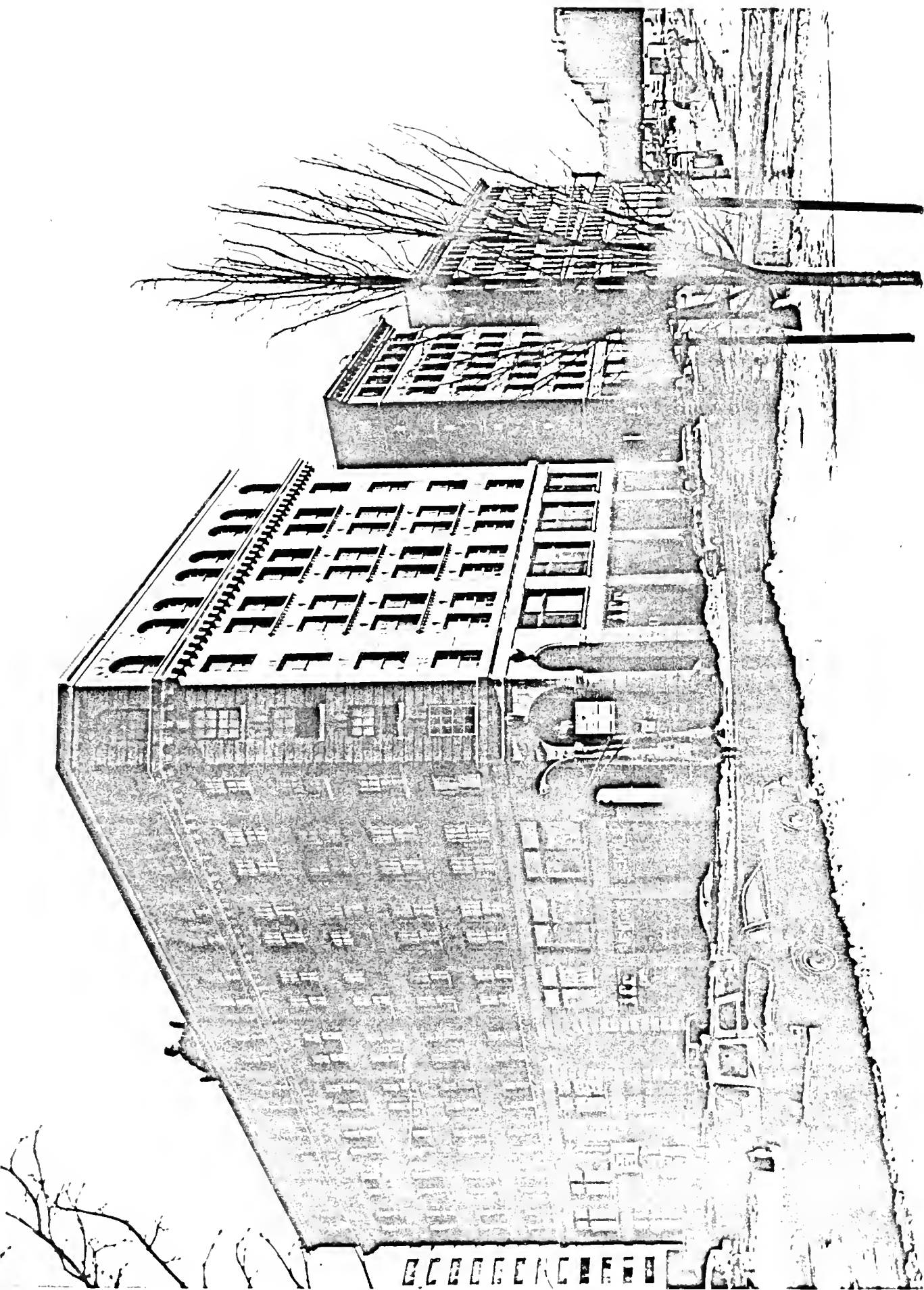
NOTE: All staff listed are currently employed by Priestley/Sterling Inc.

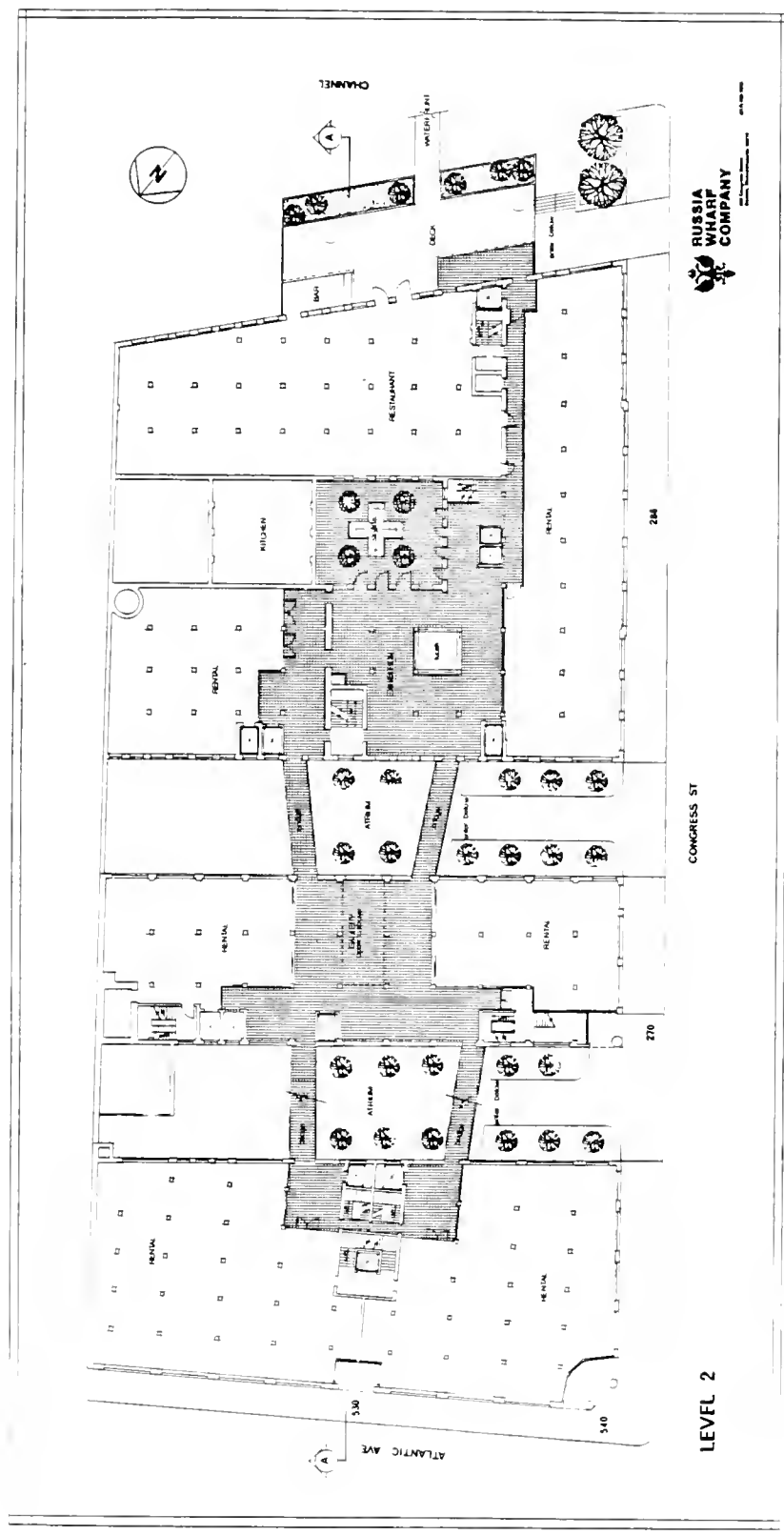
MP-Master Plan IE-Individual Experience WD-Working Drawings
SD-Schematic Design DD-Design Development UC-Under Construction C-Completed

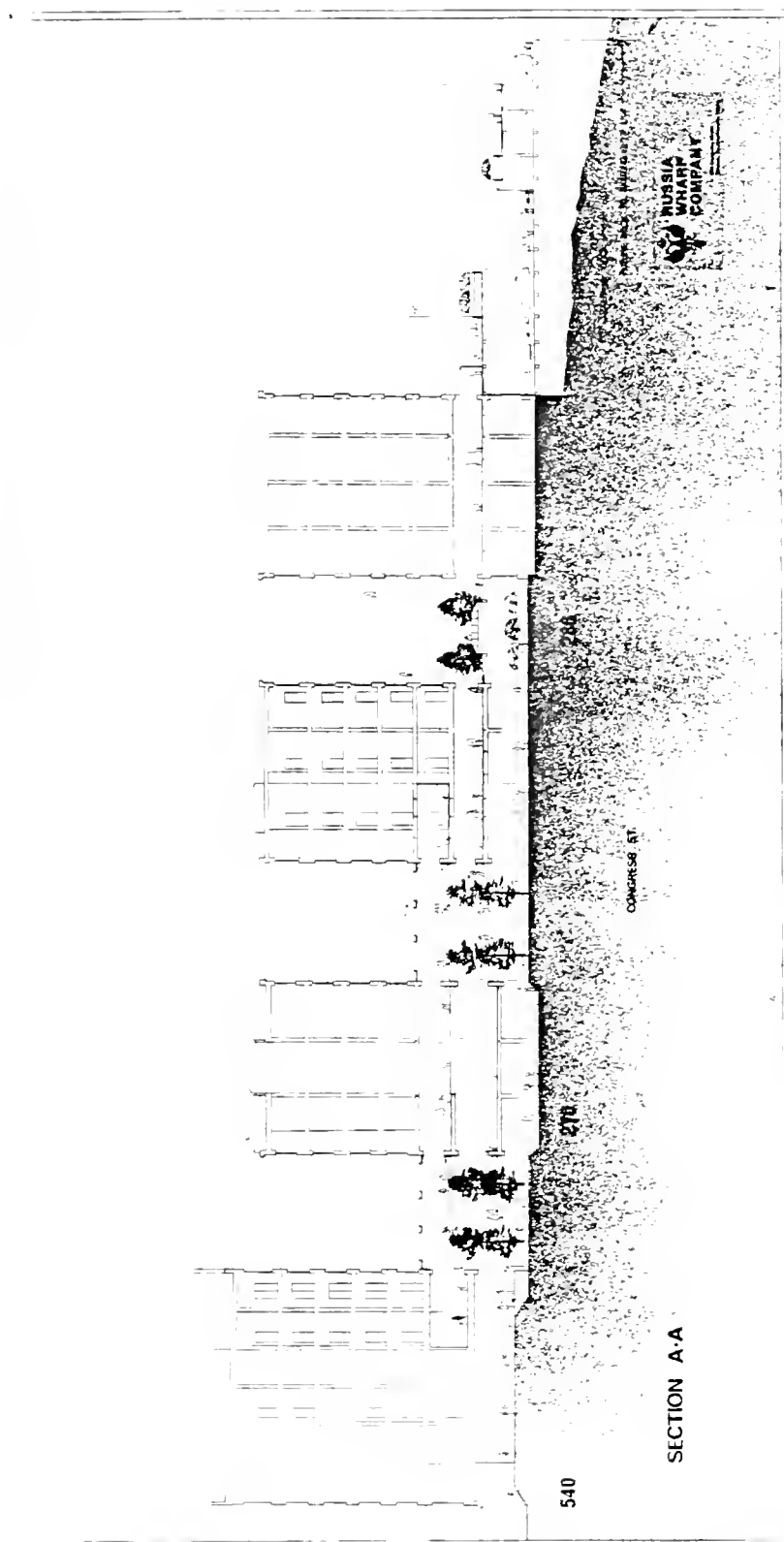
Project Name and Location	Owner Name and Address	N-New R-Renov	Status	Cost in Thousands	Scope of Service	Principal
Russia Wharf 286 Congress Street Boston, MA 02210	Ed Barry c/o Russia Wharf Co. 286 Congress Street Boston, MA 02210	N & R	UC 95%	9,000,	PSI ARCH Interior CD's	W.A.Sterling & C.P.Erickson
Condominiums 188 North St. Boston, MA	Joe Memelo c/o Biazzi Ants. 143 Richmond Street Boston, MA 02113	R	DD's 20%	700,	PSI ARCH CD's	W.A.Sterling & K. Shea
1000 Mass Ave. Office Building Cambridge, MA 02138	Spaulding & Slye Middlesex Turnpike Bedford, MA Claude Hoopes	N	UC 80%	3,300,	SMM ARCH	R.Nitishin
Bedford Street Office Bldg. Lexington, MA	Boston Properties 133 Federal Street Boston, MA Art Middleton	N	UC 80%	6,400,	SMM ARCH	R.Nitishin
Dormitories 1110 Commonwealth Ave. Boston, MA	John Hoban Dept. of Bldgs. & Grounds Boston University 25 Buick St, Boston, MA	N & R	C 1982	950,	PSI ARCH INTERIOR CD's	W.A.Sterling & R.Nitishin
Brae Burn Country Club Feasibility Study Newton, MA	Bob Grant Brae Burn Country Club 326 Fuller St., Newton, MA 02165	R	MP 1981	782,	PSI ARCH Planning	W.A.Sterling
Headquarters Office 530 Atlantic Ave. Boston, MA	G.B.H.Macomber Co. 530 Atlantic Ave. Boston, MA 02210 George Macomber	R	C 1981	1,200,	PSI ARCH INTERIOR CD's	W.A.Sterling
Executive Board Room & Offices 5 NE Tech. Center Lexington, MA	Digital Equipment Corp. 200 Baker Ave. Concord, MA Marty Lehman	N	C 1981	500,	PSI INTER. Planning & CD's	W.A.Sterling
Condominiums 96/98 Chestnut St. Boston, MA	Steve Sherril/Lenore Marvit Manataug Development Co. 6 Manataug Lane Marblehead, MA	R	C 1981	2,250,	PSI ARCH Interior CD's	W.A.Sterling
204 Second Ave. Office Building Waltham, MA	Boston Properties 133 Federal Street Boston, MA Art Middleton	N	C 1981	1,400,	SMM ARCH.	R. Nitishin

Project Name and Location	Owner Name and Address	N-New R-Renov	Status	Cost in Thousands	Scope of Service	Principal Job Contain
Classrooms 64-86 Cummington St. Boston, MA	John Hoban, Dept. of Bldg. & Grounds 25 Buick Street Boston University Boston, MA	R	C 1980	824,	PSI ARCH INTERIOR CD's	W.A.Sterling
Tracer Lane Office Building Waltham, MA	Art Middleton Boston Properties 133 Federal Street Boston, MA	N	C 1980	2,200,	SM* ARCH	R. Nitishin
Franklin B. Trask Library Andover-Newton Theological Center	Andover-Newton Theological School Henrick Road Newton Centre, MA	N & R	C 1979	1,400,	DRA ARCH	R. Nitishin
On line Computer Facility Mass State Lottery Commission Braintree, MA	Harry Kearins Mass State Lottery Commission 15 Rockdale St., Braintree, MA	R	C 1978	185,	PDI ARCH INTERIOR	W.A.Sterling
Amherst College Student Dorms Amherst, MA	Amherst College Amherst, MA	N	C 1978	1,900,	DRA ARCH	R. Nitishin
Institutional Research & Trading 1 Battery Park Plaza 11th fl. New York, N.Y.	Thomas Lynch, Exec. VP E.F.Hutton Co. 1 Battery Park Plaza New York, NY	R	C 1977	800,	PDI INTERIOR	W.A.
Biltmore Tennis Club Coral Gables, FLA	Martin Gainer City Manager City of Coral Gables Florida	N	C 1977	1,100,	FGSC ARCH	W.A.Sterling
Headquarters Office ITT Community Development Corp. Palm Coast, FLA	ITT/ Community Development Corp. Palm Coast, FLA Gordon Murtaugh	N	C 1977	1,200,	FGSC ARCH	W.A.Sterling
Miami Regional Mail Sorting Center Miami, FLA	U.S. Postal Service Miami. FLA	N	C 1977	10,000,	FGSC ARCH	W.A.Sterling Design Team
Primary/Ambulatory Care Center Jackson Hosoiital Miami, FLA	Jackson Memorial Hospital Miami, FLA	N	C 1977	7,500,	FGSC ARCH	W.A.Sterling Design Team

Project Name and Location	Owner Name and Address	N-New R-Renov	Status	Cost in Thousand	Scope of Service	Principal Job Cont
Biltmore Hotel & Country Club Building Coral Gables, FLA	Martin Gainer City Hall, Coral Gables FLA	R	Phase I C 1977	3,000,	FGSC ARCH	W.A.Sterlin
Computer/Office Building Miami Dade Community College South Campus, Miami FLA	Jeff Brezner Miami Dade Community College 11011 SW 10A St. Miami, FLA	N	C 1977	1,200,	FGSC ARCH	W.A.Sterlin
Parking Garage/Tennis Club Biltmore Hotel Coral Gables, FLA	Martin Gainer, City Manager City Hall, City of Coral Gables FLA	N	WD 100%	1,500,	FGSC ARCH	W.A.Sterlin
Headquarters Office Florida Power & Light Co. Miami FLA	Chick Davis Florida Power & Light Co. Flagler Street Miami, FLA	N	C 1975	85,000,	FGSC ARCH	W.A.Sterlin Design Team
* NOTE: The following firms were primary contractor for projects presented above.						
SMM - Symmes, Maini & McKee, Cambridge, MA						
DRA - Drummey, Rosane, Anderson, Newton MA						
PDI - Professional Designs, Inc., Boston, MA						
FGSC - Ferendino/Grafton/Spillilis/Candela, Coral Gables, FLA						







540

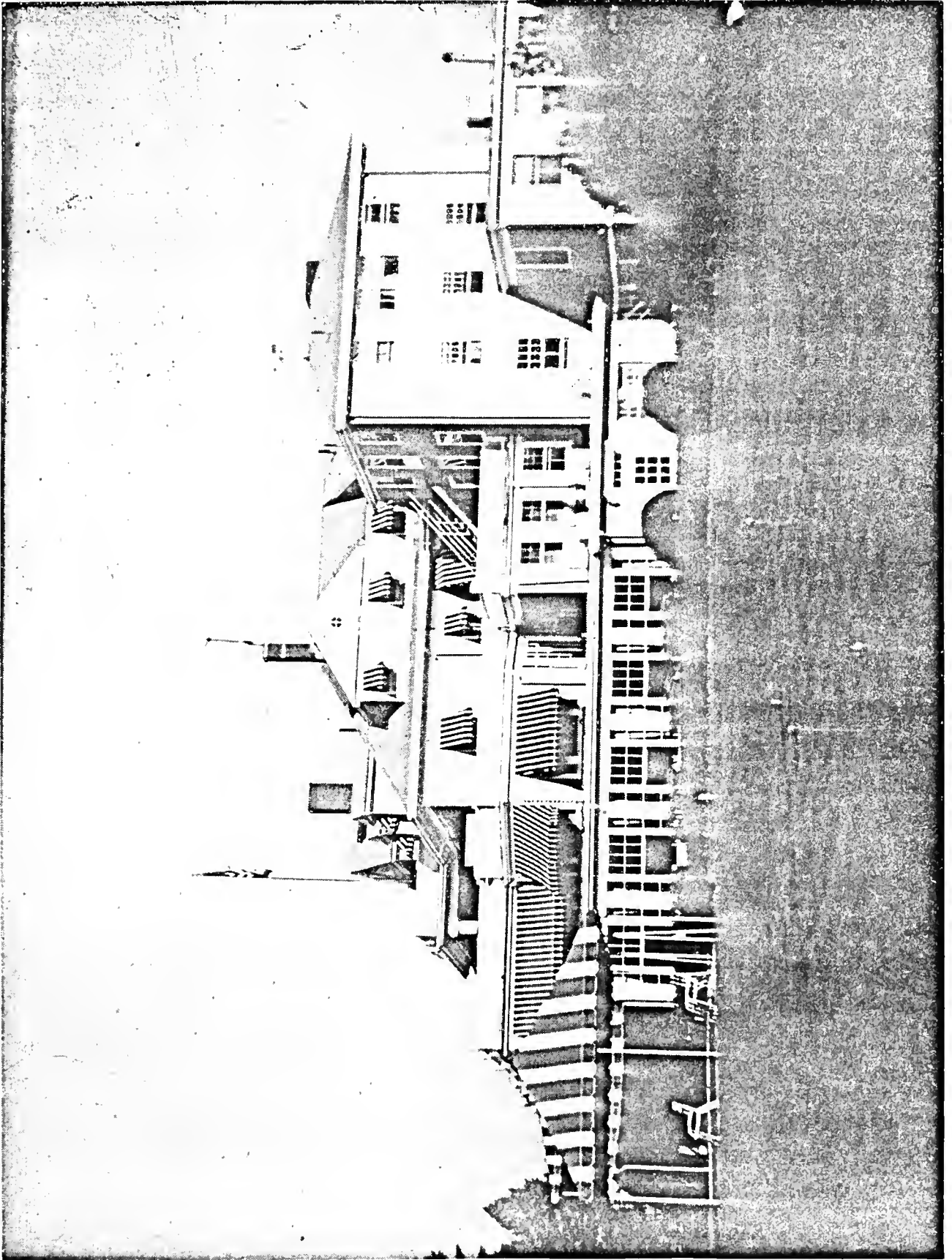
SECTION A-A

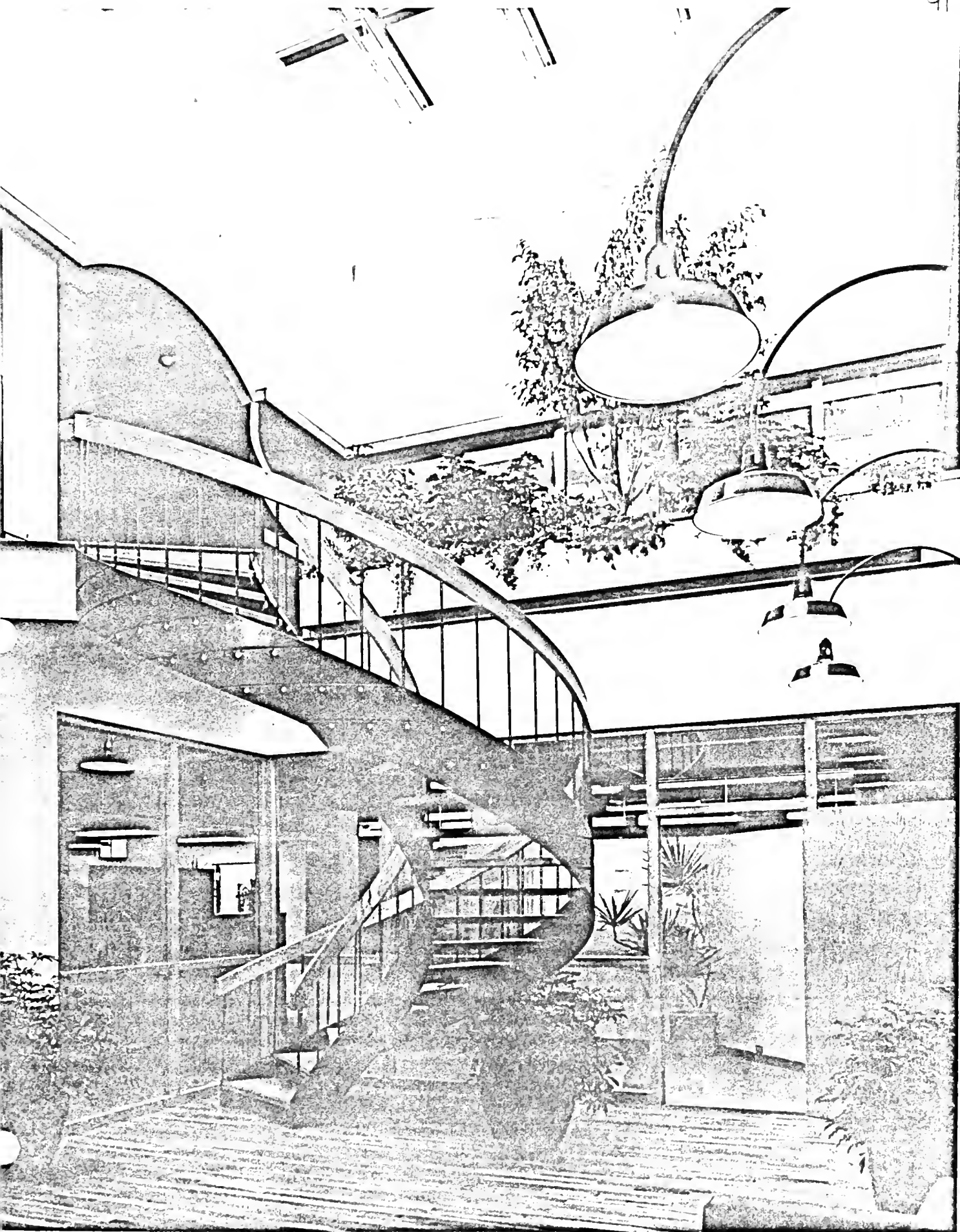
CONCRETE ST.

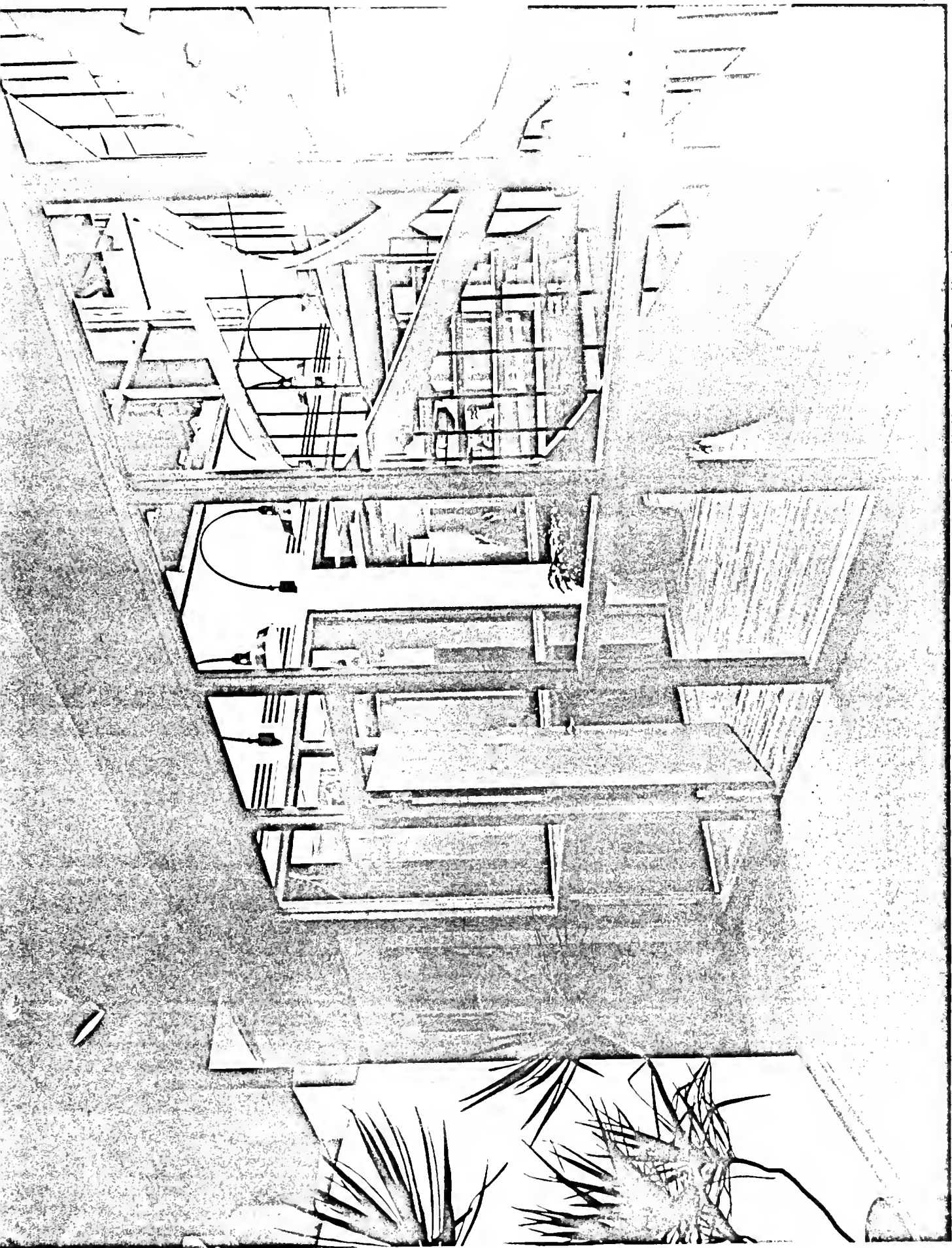
270

280

RUSSIA
WHARF
COMPANY

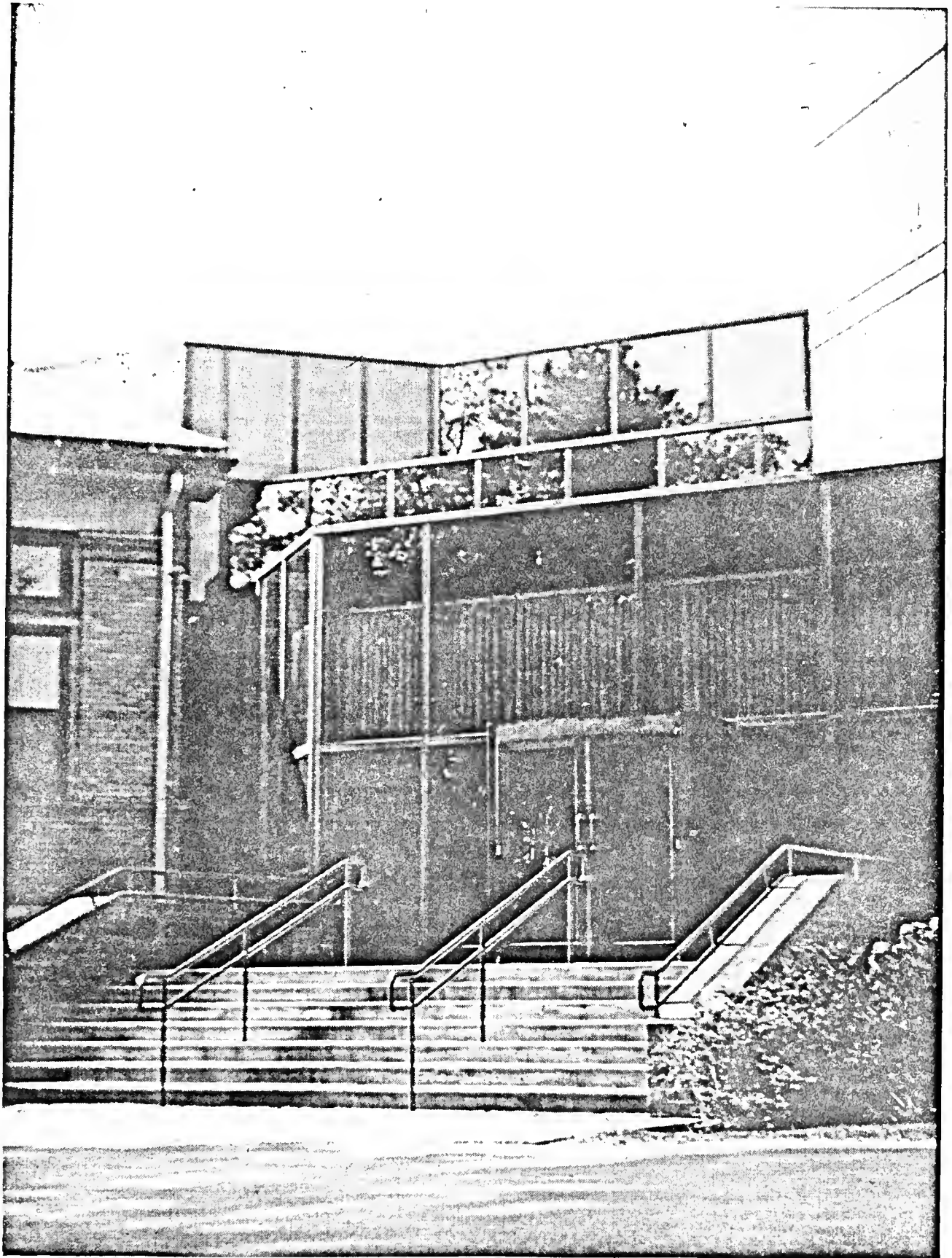




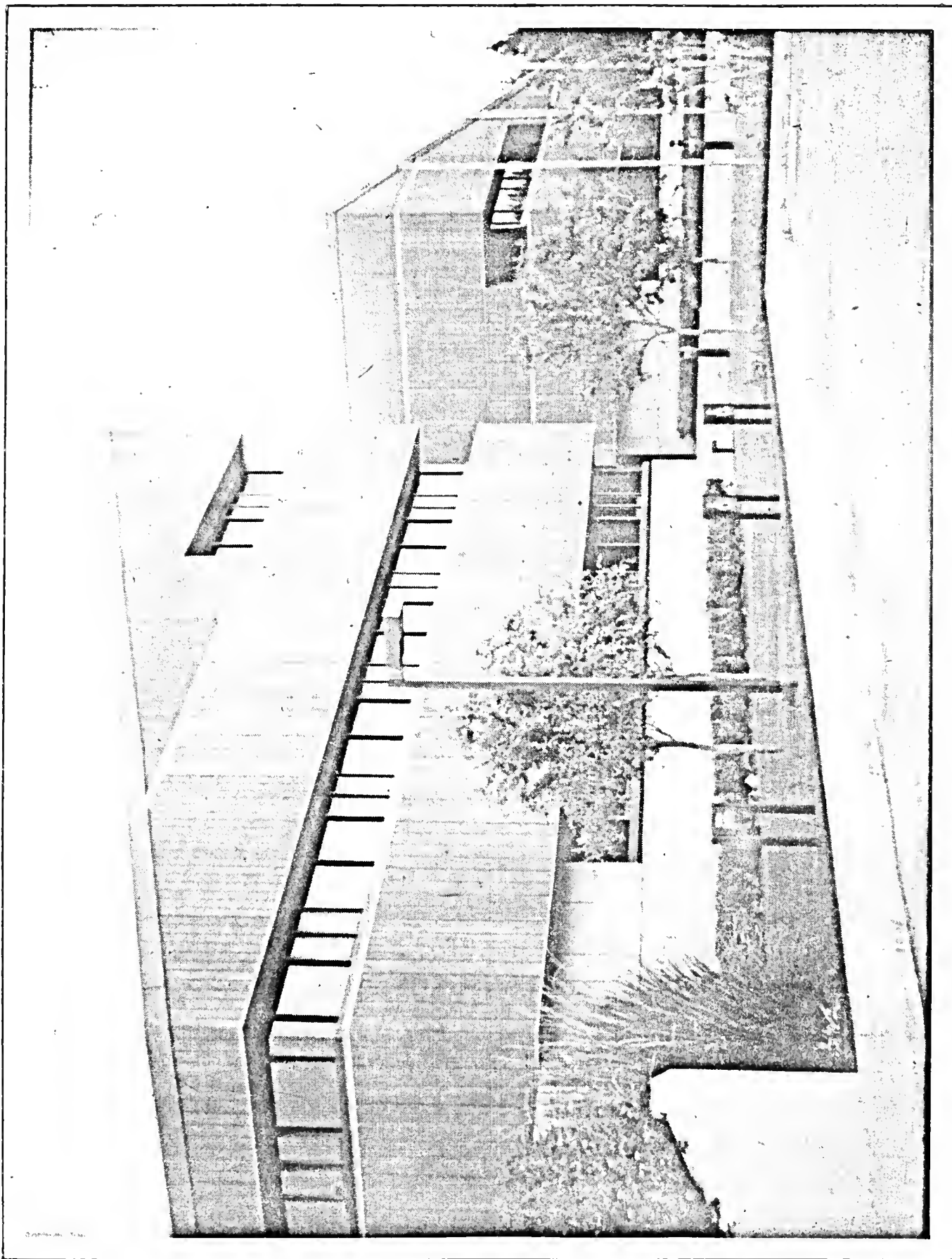


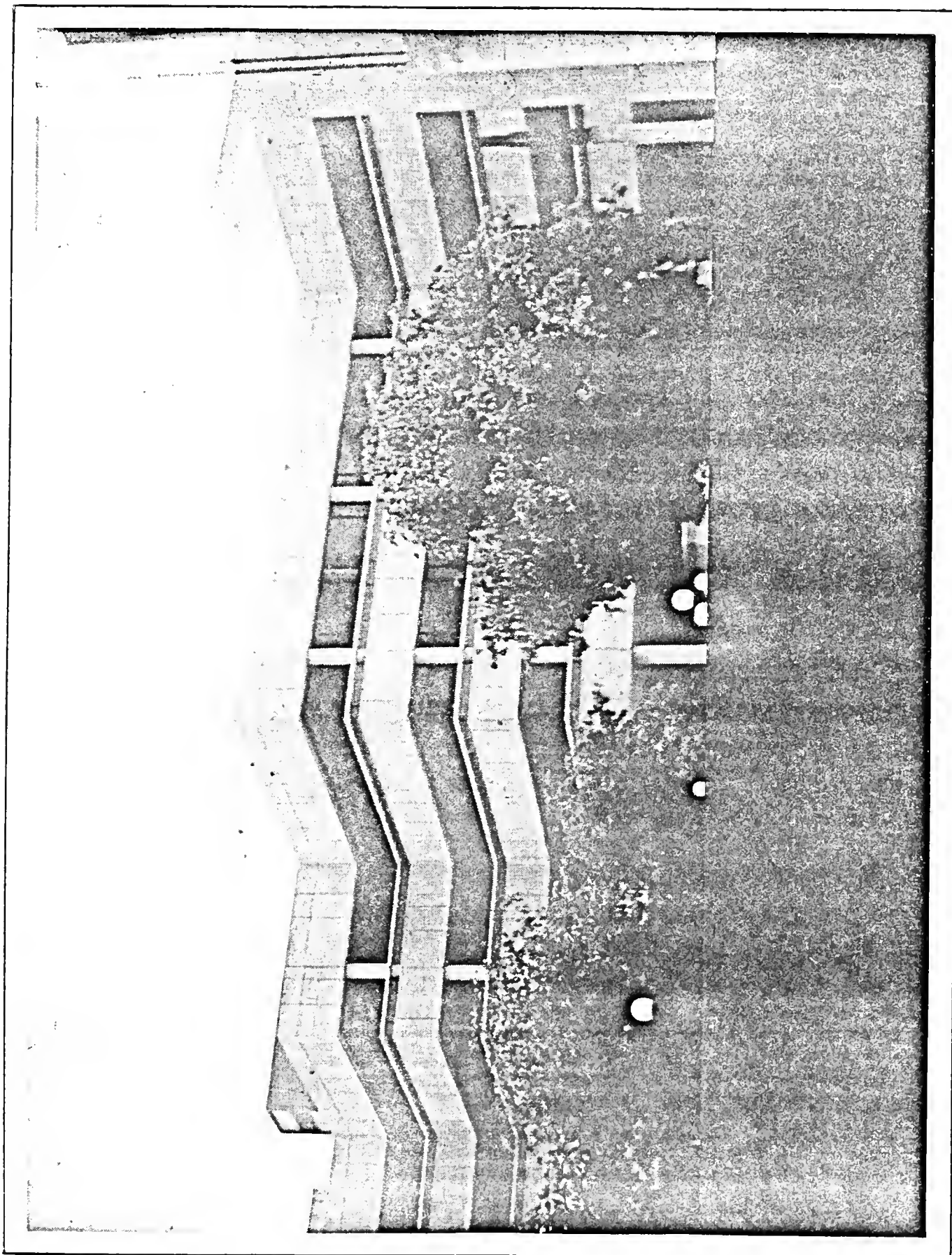


Tracer Lane Office Building

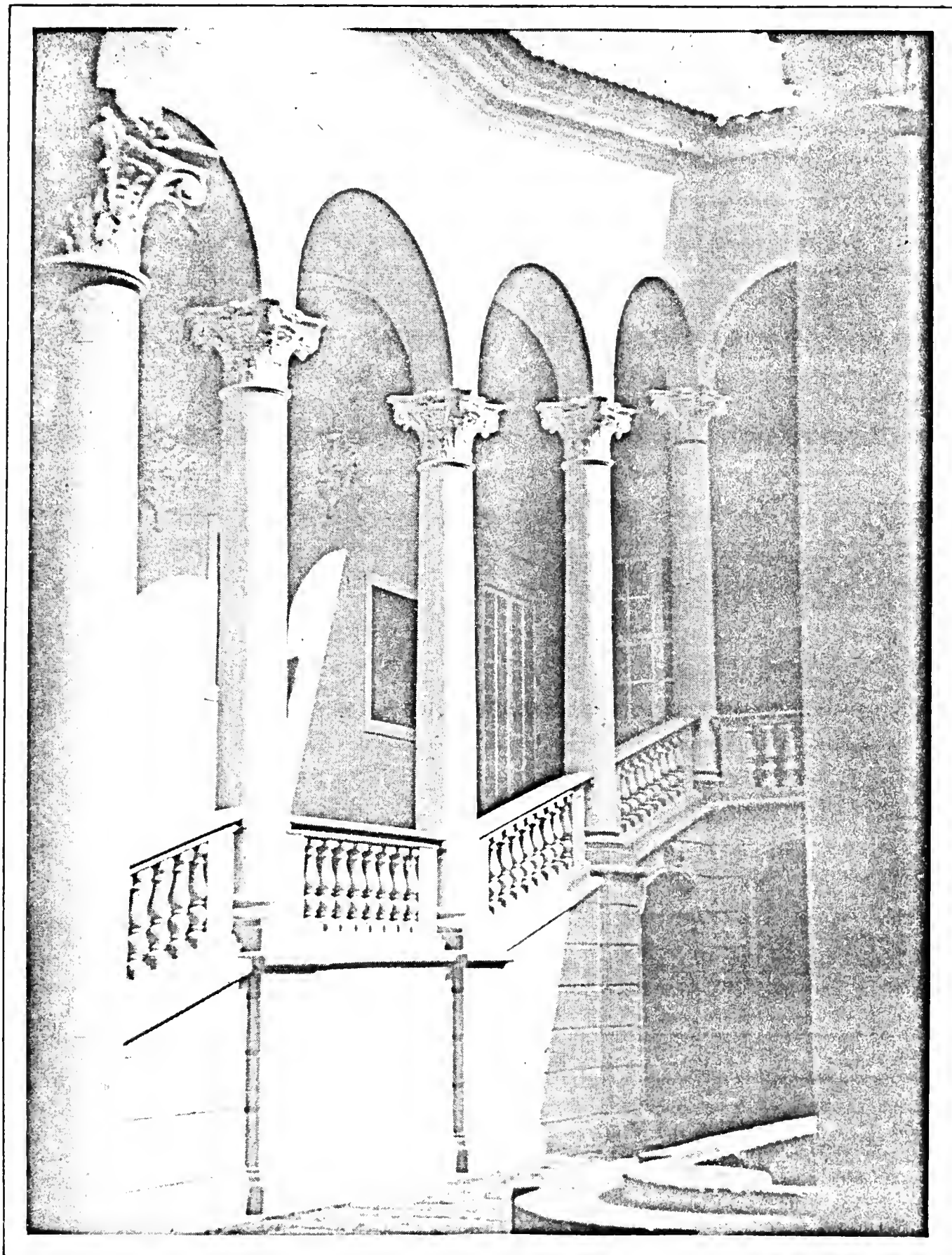


Trask Library

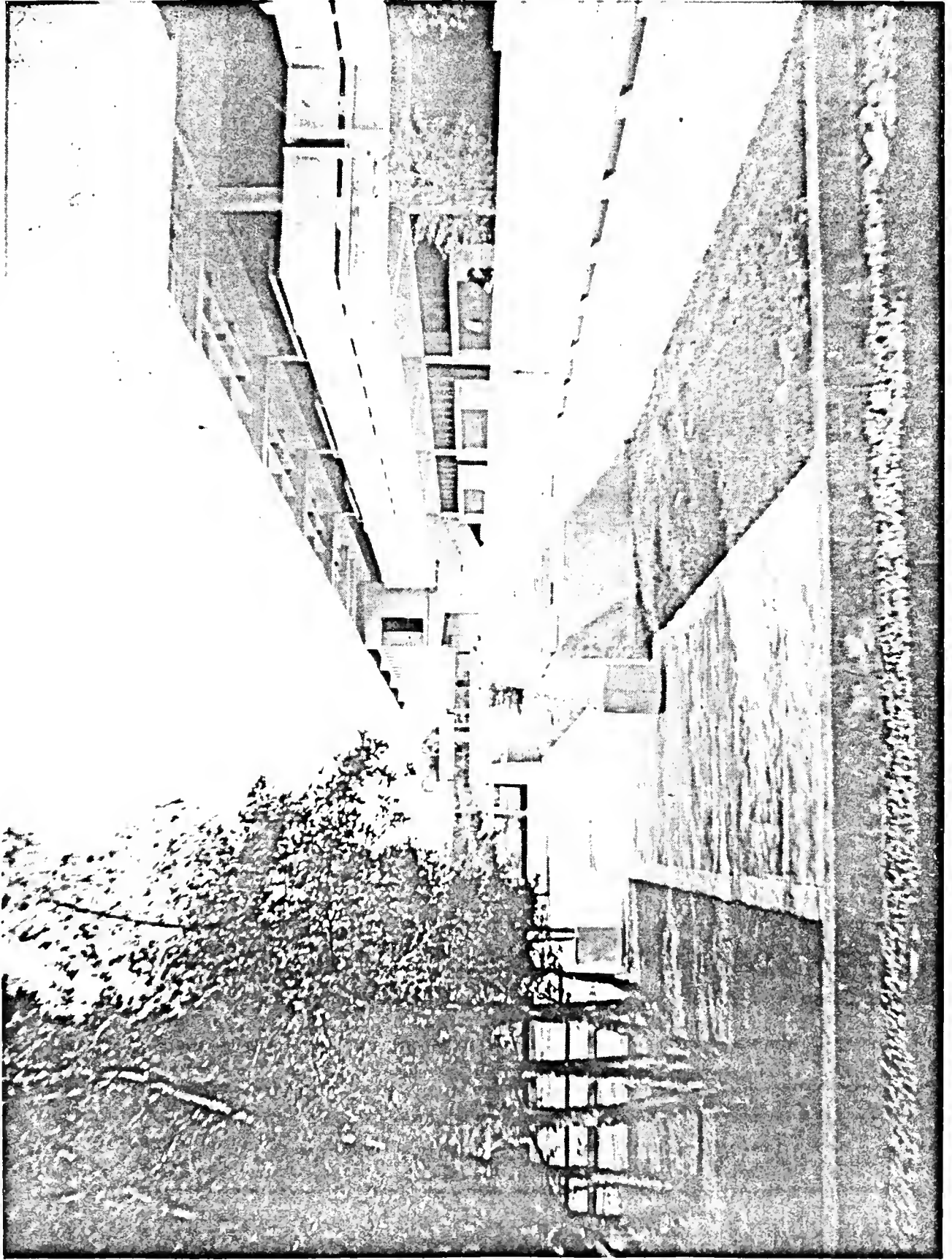




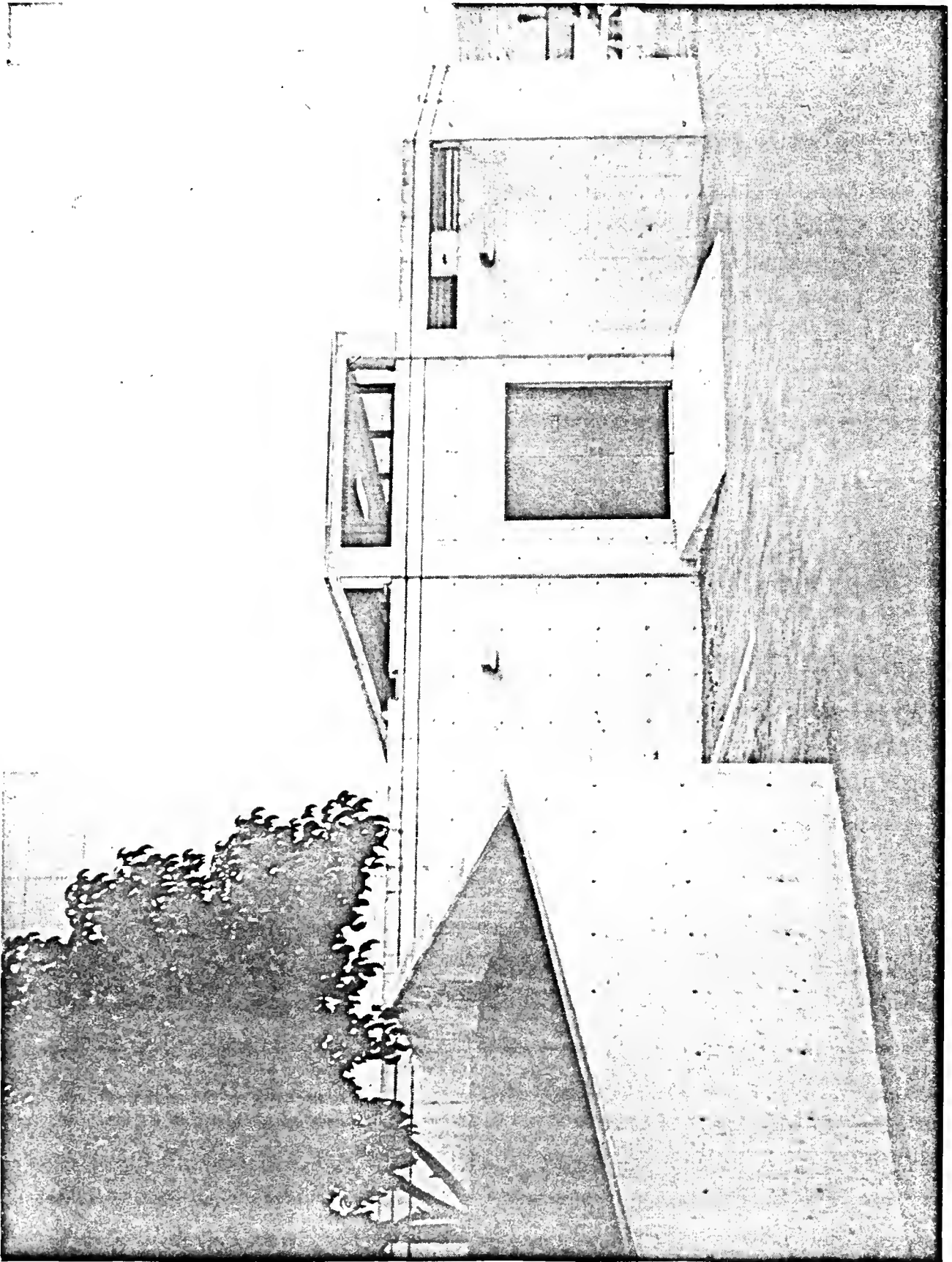
Jackson Memorial Hospital



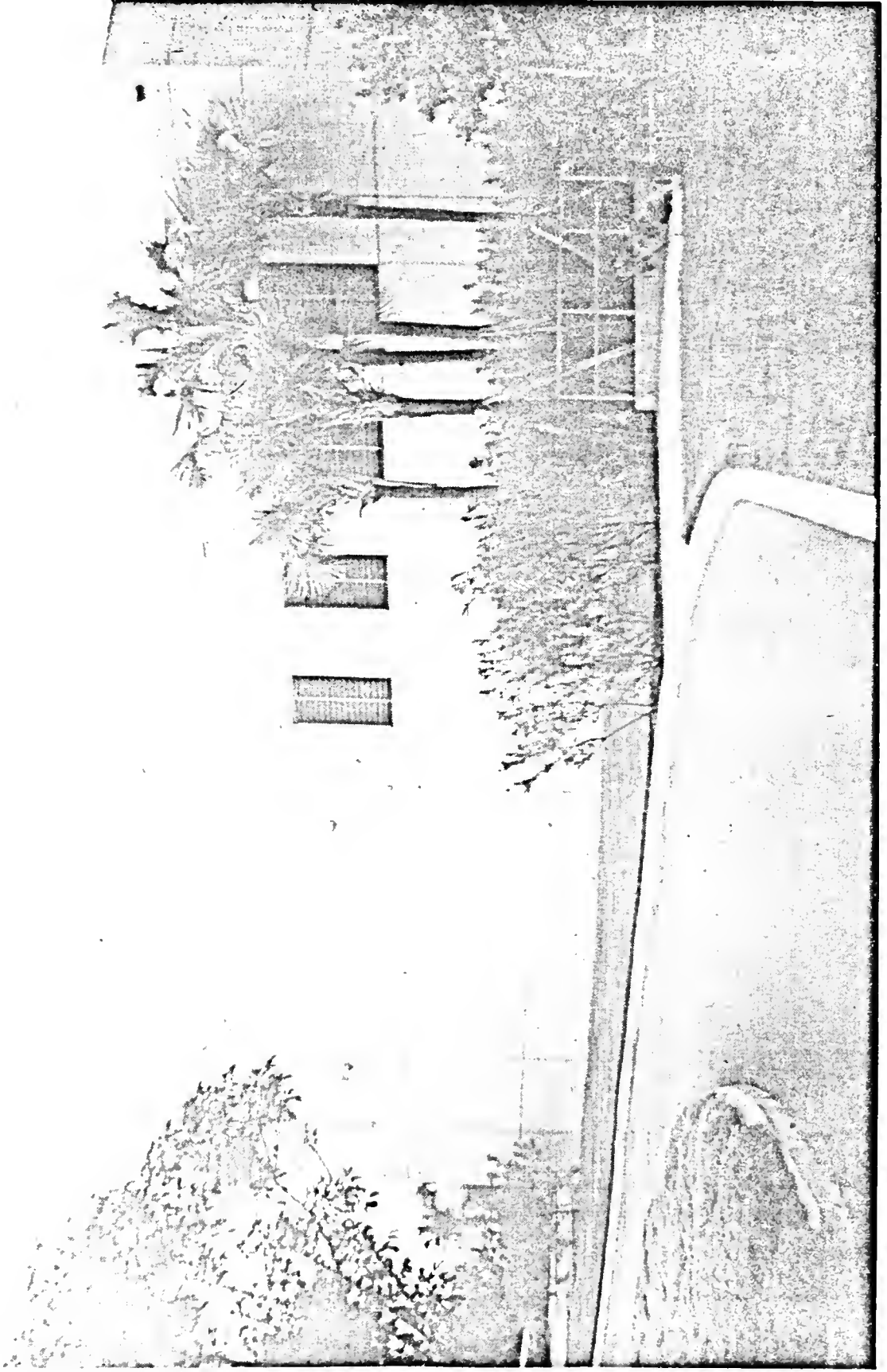
Coral Gables Biltmore Restoration



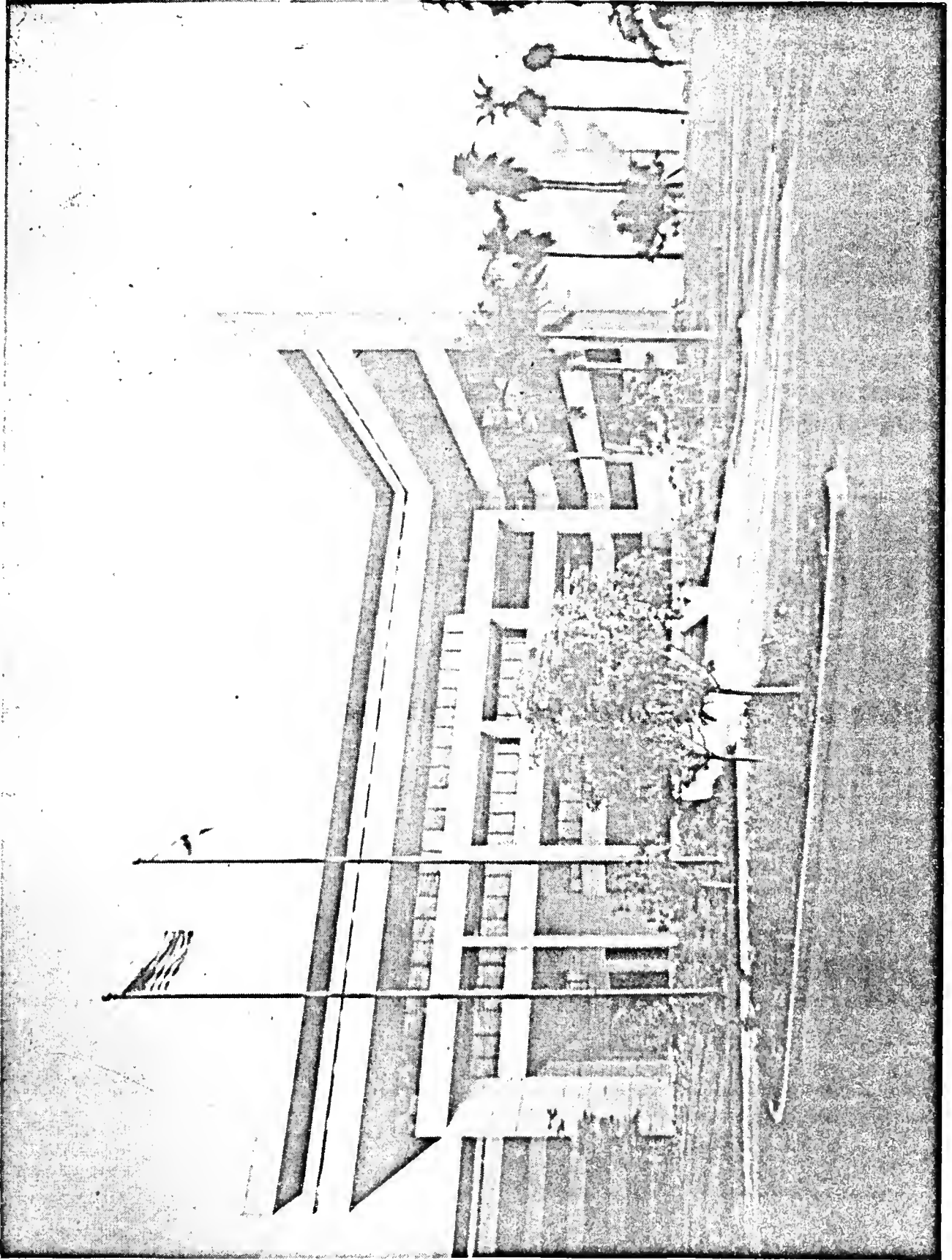
Miami Dade Community College Classroom/Office Building



Florida Power & Light Service Building



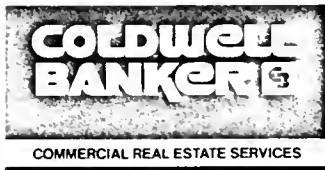
Florida Power & Light Utility Building



Florida Power & Light Headquarters Office

Appendix D

Market Overview



50 STANIFORD STREET SUITE 1000
BOSTON, MASSACHUSETTS 02114

103

AN OFFICE BUILDING MARKET OVERVIEW
BOSTON, MASSACHUSETTS

PREPARED BY:

Coldwell Banker Commercial Real Estate Services
50 Staniford Street
Boston, Massachusetts

John B. Robbie, Jr.
(617) 367-7641

February, 1982

Introduction

The purpose of this report is to provide a simple and yet valuable overview of the Boston office building market, both current and projected. The report focuses on the downtown market including:

Financial District
Back Bay
Government Center
Midtown
Waterfront

The information provided is intended to help property owners, office users, government officials and developers in evaluating their respective situations and to inform them about current trends in the area.

Prepared By:

Coldwell Banker Commercial
Real Estate Services
John B. Robbie, Jr.

General Overview

The Boston office market can be categorized into five submarkets:

- Financial District
- Back Bay
- Government Center
- Midtown
- Waterfront, North End

The Financial District is clearly the focal point of business activity within the Boston office market. It has the highest concentration of office space totalling 13,247,661 square feet. The leading industries occupying office space in the Financial District are banking (15.9%) and legal services (12.7%).

The Back Bay is second to the Financial District in amount of office space totalling 6,262,185 square feet. Fifty-eight and one half percent (58.5%) of Back Bay's office space is occupied by insurance companies. The two major buildings in the Back Bay are the Prudential Tower, 1,400,000 square feet; and the John Hancock Tower, 2,000,000 square feet. The Back Bay is the site of the new \$318 million, mixed-use Copley Place project, scheduled for completion in late 1983.

The Government Center contains 4.4 million square feet of privately owned office buildings. This figure does not contain an estimated 2 million square feet of government owned and occupied office space. When you consider the privately owned office building, the tenant make-up is similar to that of the Financial District.

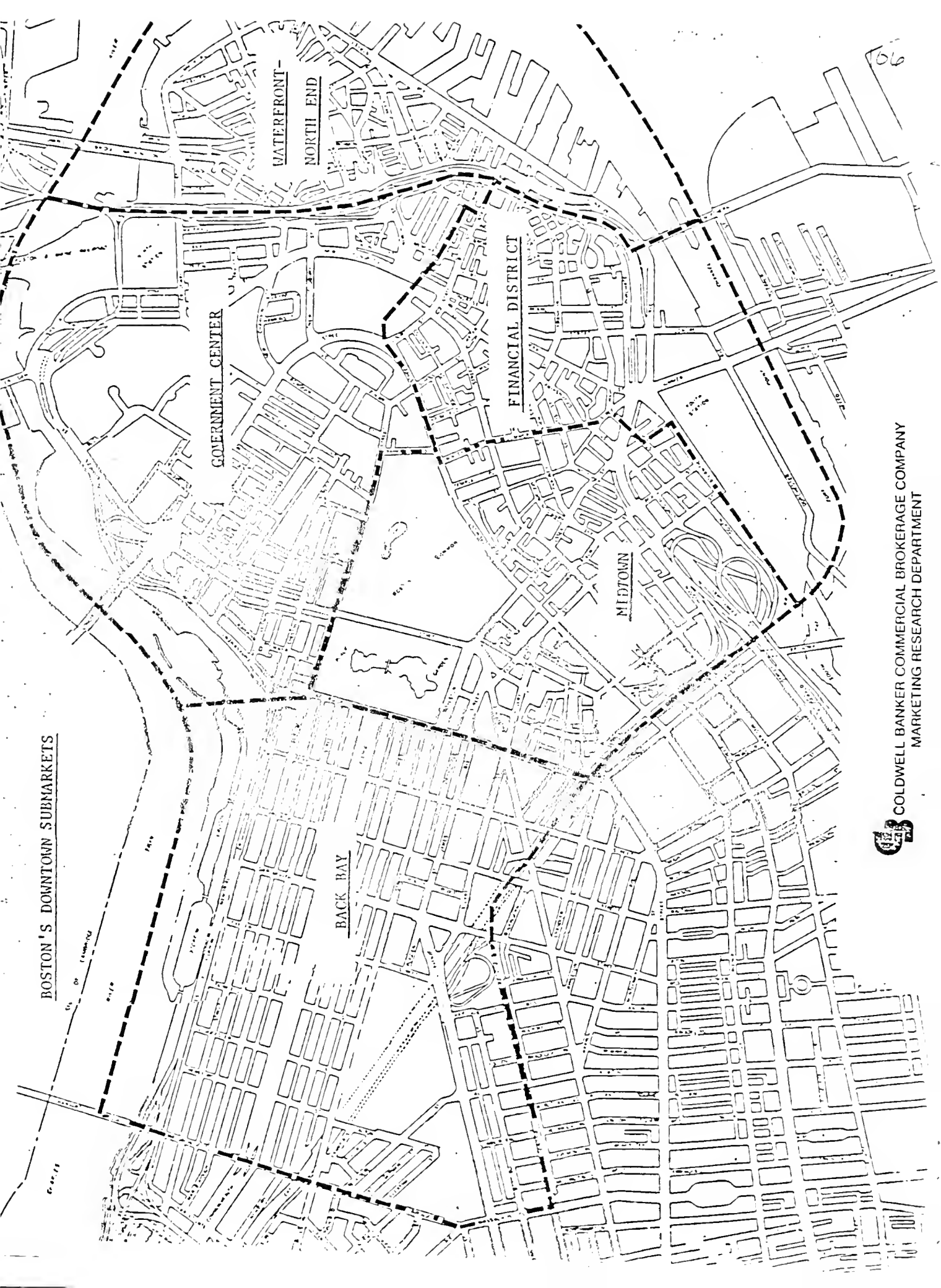
Midtown presently contains 1.3 million square feet of office space of which 19% is occupied by non-profit organizations. Midtown is in a transitional mode; there is substantial renovation of older buildings, as well as new construction, underway. This should have a promising effect on the Midtown area.

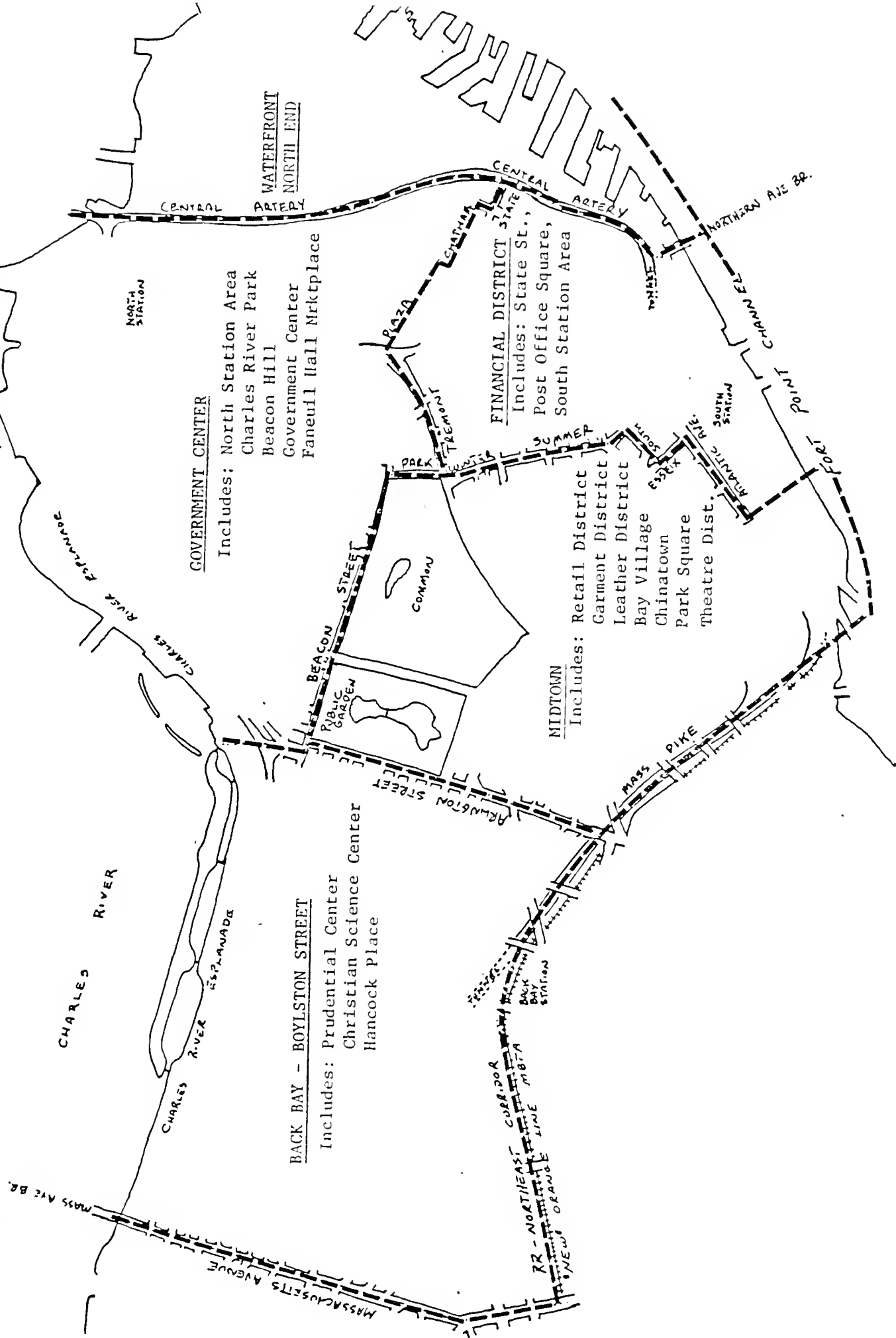
The Waterfront contains less than a million square feet of office space and is better known for its fashionable residential apartments and unique restaurants.

NOTE: Information is based on firms surveyed who occupied 1,000 square feet and more.

Source: Coldwell Banker Commercial Real Estate Services Marketing Research Department.

BOSTON'S DOWNTOWN SUBMARKETS





DOWNTOWN BOSTON OFFICE MARKET
MARKET OVERVIEW

Total Occupied Office Footage (Tenants of 1,000 SF or More)	25,759,138 Sq.Ft.
Number of Office Firms	3,187
Average Size Office Firm	8,083 Sq.Ft.
Percent Office Footage Occupied By Owner/Users	48.6% ¹

Office Market Composition - Major Business Categories²

Finance, Insurance, Real Estate (S.I.C. 60-69)

13,694,290 Sq.Ft.	53.2% of total occupied office footage
575 firms	23,816 Sq.Ft. - Ave. size firm

Service (S.I.C. 70-89)

7,254,547 Sq.Ft.	28.2% of total occupied office footage
1,416 firms	5,123 Sq.Ft.-Ave. size firm

Office for Manufacturing Firms (S.I.C. 20-39)

1,196,050 Sq.Ft.	4.6% of total occupied office footage
115 firms	10,400 Sq.Ft. - Ave. size firm

Office for Wholesale & Retail Trade Firms (S.I.C. 50-59)

1,064,930 Sq.Ft.	4.1% of total occupied office footage
332 firms	3,208 Sq.Ft. - Ave. size firm

Transportation, Communications, Public Utilities (S.I.C. 40-49)

710,290 Sq.Ft.	2.8% of total occupied office footage
74 firms	9,599 Sq.Ft. - Ave. size firm

Government Office in Private Buildings

756,099 Sq.Ft.	2.9% of total occupied office footage
72 offices	10,501 Sq.Ft. - Ave. size office

Average Annual Office Space Sales and Leasing Activity (1972-Mid 1979)

1,495,814 Sq.Ft. (5.8% Activity Rate)

¹Based on lease information for 49.7% of office footage surveyed.

²Percentages based on firms occupying 2,000 SF or more of office space.

Source: Coldwell Banker Data Bank



COLDWELL BANKER COMMERCIAL BROKERAGE COMPANY
MARKETING RESEARCH DEPARTMENT

NEW CONSTRUCTION

50 Milk Street
250,000 Square Feet 21 Story
Developed by Robert Elder Associates
Completed July, 1981 (fully leased) (COMPLETED)

One Post Office Square
750,000 Square Feet 39 Story with 300 room hotel
Developed by Beacon Companies
Completion Date - First Quarter, 1981 (90% leased) (COMPLETED)

53 State Street (Exchange Place)
1,000,000 Square Feet 45 Story
Developed by Olympia & York
Completion Date - Second Quarter, 1984 (UNDER CONSTRUCTION)

Copley Place
700,000 Square Feet of Office Space
500,000 Square Feet of Retail Space
781 Room Luxury Hotel (Western International)
1,008 Room Convention Hotel (Marriott)
Developed by Urban Investment and Development Corporation
Completion Date - Second Quarter, 1984 (UNDER CONSTRUCTION)

Devonshire Towers
110,000 Square Feet of Office Space
Mixed Used, 8 Floors, Mid-Rise, 32 Floors, Apartments
Developed by Devonshire Associates
Completion Date - First Quarter, 1983 (UNDER CONSTRUCTION)

155 Federal Street
200,000 Square Feet 17 Story
Developed by C.W. Whittier and Brothers
Completion Date - First Quarter, 1984 (PROPOSED)

250 Franklin Street
430,000 Square Feet 26 Story
Developed by Cabot, Cabot and Forbes
Completion Date - Second Quarter, 1984 (PROPOSED)

Dewey Square
1,250,000 Square Feet 42 Story
Developed by Rose Associates
Completion Date - First Quarter, 1984 (UNDER CONSTRUCTION)

Quincy Market Office Building
300,000 Square Feet
Developed by Attorney James Sullivan
Completion Date - Fourth Quarter, 1984

(PROPOSED)

Exeter Street Development
240,000 Square Feet
Developed by Lawrence Ruben
Completion Date - Late 1984

(PROPOSED)

399 Boylston Street
325 Square Feet
Developed by Back Bay Associates
Completion Date - Second Quarter, 1984

(PROPOSED)

NEW CONSTRUCTION AND REHAB & CLASS "A" SPACE
BY YEAR OF COMPLETION

1981		1982		1983		1984	
Sq. Ft. (IN THOUSAND)	Project	Sq. Ft. (IN THOUSAND)	Project	Sq. Ft. (IN THOUSAND)	Project	Sq. Ft. (IN THOUSAND)	Project
750	1 P.O. Sq.	68(R)	99 Bedford St.	110	Devonshire T.	300	Mrk. Place Center
250	50 Milk St.	130(R)	120 Boylston St.			1,000	53 State St.
100(R)	Berkeley Place	60(R)	88 Broad St.			1,250	Dewey Square
67(R)	268 Summer St.	160(R)	One Liberty St.			430	250 Franklin St.
210(R)	2 Oliver St.	28(R)	One Milk St.			700	Copley Place
18(R)	10 Liberty Sq.	60(R)	45 Milk St.			240	Exeter St.
60(R)	Church Green	100(R)	150 Tremont St.			200	155 Federal St.
		140(R)	380 Stuart St.			325	399 Boylston
		40(R)	376 Boylston St.				
		36(R)	26 West St.				
		19(R)	45 Bromfield St.				
<u>1,455,000 SF</u>		<u>841,000 SF</u>		<u>110,000 SF</u>		<u>4,445,000 SF</u>	
1,215,000 Leased		92,000 Leased		-0- Leased		-0- Leased	
<u>240,000 Uncommitted</u>		<u>748,000 Uncommitted</u>		<u>110,000 Uncommitted</u>		<u>4,445,000 Uncommitted</u>	

Note: Lease figures are as of February, 1982.

(R): Rehab

DOWNTOWN BOSTON
NEW CONSTRUCTION: ABSORPTION: VACANCY
1960 TO 1985

<u>Date</u>	<u>New Construction Office Space</u>	<u>Average Annual Absorption Rate</u>	<u>Vacancy Rates Office Space</u>
1960-64	0.9	N/A	N/A
1965-69	0.7/yr.	1.0	N/A
1970-72	1.4/yr.	0.9	4.8
1973-75	2.2/yr.	1.5	7.6
1976	2.3	0.5	11.9
1977	1.2	0.7	14.3
1978	0.1	0.7	9.6
1979	0.1	0.7	5.8
1980	0.0	0.9	3.2
1981	1.0	1.1	2.2
1982	0.0**	1.1*	3.2**
1983	0.1**	1.1*	3.0**
1984	4.4**	1.3**	5.0**

*Projected by Boston Redevelopment Authority.

**Projection based on information from Coldwell Banker Office Department.

Source

1960-81: Boston Redevelopment Authority and Building Owners and Managers Associates Greater Boston.

Notes: New construction figures do not include rehab.
Figures in millions.

DOWNTOWN REHABS

	<u>Square Feet</u>	<u>Leased</u>	<u>Completion</u>	<u>Rate</u>
99 Bedford Street	83,658	-0-	Fall 1982	\$22.00
120 Boylston Street	115,000 Office 40,000 Retail	25,000 Office	Available now	\$15.00-18.00
88 Broad Street	60,000	27,520	Available now	\$15.00-20.00
45 Bromfield Street	19,000	6,330	Available now	\$13.50-15.00*
376 Boylston Street	40,000	37,000	Available now	\$17.00
Berkeley Place	100,000	90,000	Available now	\$19.00
Church Green	60,000	50,000	Available now	\$21.00
One Liberty Square	160,000	60,000	Available now	\$23.00-27.00
10 Liberty Square	18,000	16,500	Available now	\$22.00
One Milk Street	28,000	8,000	Fall 1982	\$22.00-25.00
45 Milk Street	60,000	-0-	January 1983	\$25.00-28.00
Two Oliver Street	212,300	122,300	Available now	\$16.00-19.00
190 Portland Street	100,000	-0-	Late 1982	\$14.00
268 Summer Street	67,000	37,000		
150 Tremont Street	100,000	-0-	Fall 1982	\$20.00-22.00
Stuart Building	140,000	60,000	Available now	\$20.00
26 West Street	<u>36,000</u>	<u>-0-</u>	Available now	\$12.00-14.00
	1,398,958	539,650		

Available Space: 859,308 Square Feet

CURRENT REHAB MARKET

The Boston office market has experienced an incredible amount of rehabilitation of older buildings in the last two years. Currently there are 17 buildings under way in both downtown and Back Bay.

<u>Building</u>	<u>Total SF</u>	<u>Leased</u>	<u>Completion</u>	<u>Rate</u>
99 Bedford Street	68,000	--	Mid 1982	\$22.00
120 Boylston Street	160,000	30,000 SF	Mid 1982	\$16.00
88 Broad Street	60,000	20,000 SF	Mid 1982	\$18.00
45 Bromfield Street	19,000	5,000 SF	Mid 1982	\$13.50-15.00*
376 Boylston Street	40,000	25,000 SF	1982	\$15.00
Berkeley Place	100,000	70,000 SF	1981	\$18.00
Church Green	60,000	50,000 SF	1981	\$22.00
One Liberty Square	160,000	30,000 SF	1981	\$23.00-27.00
10 Liberty Square	18,000	15,000 SF	1981	\$22.00
One Milk Street	28,000	6,000 SF	Mid 1982	\$22.00
2 Oliver Street	210,000	140,000 SF	1981	\$16.00-18.00
45 Milk Street	60,000	--	Late 1982	N/A
268 Summer Street	67,000	15,000 SF	1981	\$13.50-15.50
150 Tremont Street	100,000	--	Mid 1982	\$20.00-22.00
380 Stuart Street	140,000	--	Late 1982	\$20.00
26 West Street	36,000	6,000 SF	1982	\$12.00-14.00
31 Milk Street	88,000	78,000 SF	1981	\$19.50
Total amount of rehab		1,414,000 SF		
Total amount leased		<u>490,000 SF</u>		
Total amount of available rehab space coming on line between now and the end of 1982		924,000 SF		

Projected Rehab Situation

The future for the rehab market in Boston looks optimistic. As a result of high rents and a shortage of Class A tower space coming on line in the next two years, the demand should remain strong. The Economic Recovery Tax Act of 1981 has created even more incentives for developers to purchase buildings for rehab. The majority of activity will occur on the outskirts of the financial district such as:

Fort Point Channel Area
South Station Area
North Station Area
Mid Town
Back Bay

These areas have become attractive to developers for the following reasons:

1. Lower purchase price.
2. A willingness on behalf of tenants to relocate away from the Financial District to avoid paying high rental rates.
3. The effort of the city and the Boston Redevelopment Authority to encourage new development in these areas.
4. The lack of available product to rehabilitate in the Financial District.

Rental Rate

First Class Office Tower

\$25/square foot to \$35/square foot

Average Deal - \$28/square foot

Well Located Rehab Building

\$20/square foot to \$25/square foot

Average Deal - \$23/square foot

Comments

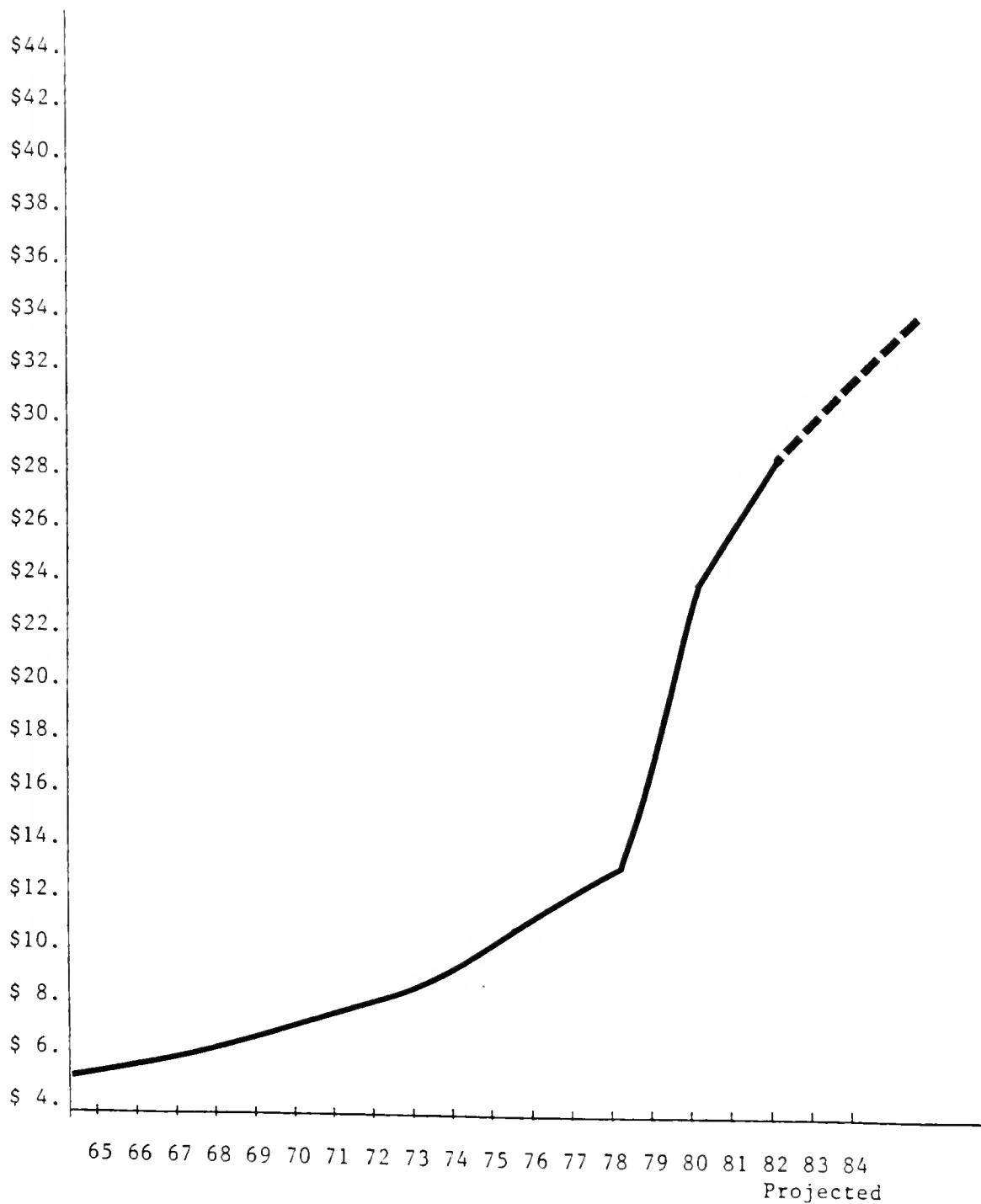
A typical deal for first-class office space would be a fixed rate base rent for five years, with tax and operating escalation. For any additional term or years six through ten on a ten year deal, the base rent would be increased, either by 50% of the CPI (Consumer Price Index) or to a market rent to be agreed between landlord and tenant.

Measurements are most commonly done on a New York method (glass line to glass line less all vertical protrusion, elevator, stairwells, etc.)

Source: Coldwell Banker Office Building Department

BOSTON CENTRAL BUSINESS DISTRICT
RENTAL RATE TRENDS

OFFICE BUILDING RENT PER SQUARE FOOT PER YEAR



CLASS A OFFICE SPACE BY YEAR

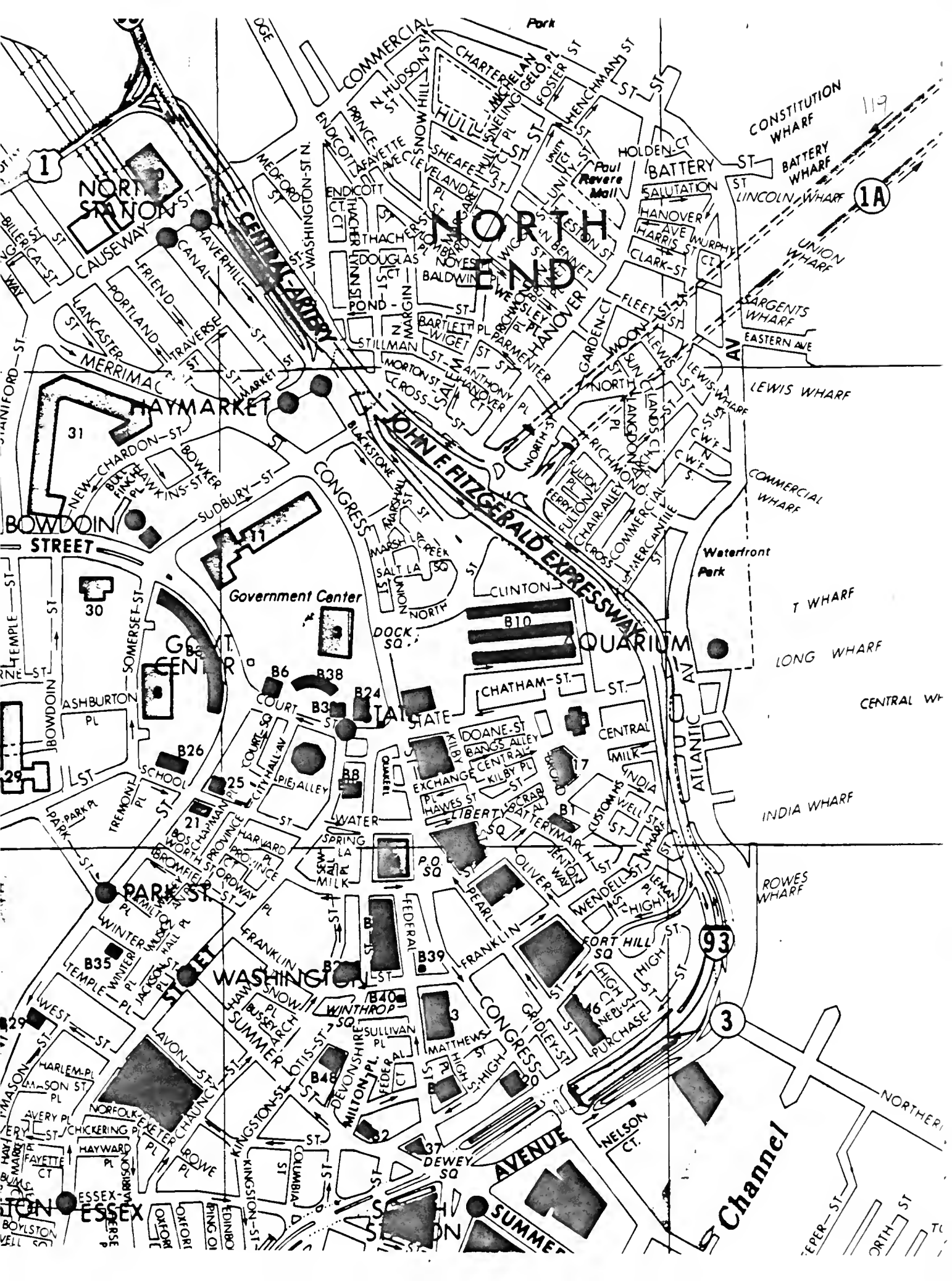
NOTE: Price per square foot is an average for Class A tower space.

OFFICE BUILDINGSMap Number

B1	Batterymarch Building
B2	Blue Cross-Blue Shield Building
B3	Boston Stock Exchange Building (Proposed)
B4	Capitol Bank Building
B6	City Bank & Trust Building
B8	Devonshire Towers (Proposed)
B10	Faneuil Hall (Quincy Market)
B11	Federal Reserve Bank Building
B17	40 Broad Street
B18	Harbor Plaza
B20	Keystone Building
B21	Lafayette Place
B23	National Shawmut Bank Building
B24	New England Merchants National Bank Building
B25	Old City Hall Office Building
B26	One Beacon Street
B27	One Boston Place
B28	100 Franklin Street
B29	141 Tremont Street
B30	One Post Office Square
B31	1-3 Center Plaza
B32	One Washington Mall
B38	Sears Cresent
B39	70 Federal Street
B40	75 Federal Street
B41	60 State Street
B42	State Street Bank Building
B43	Stone & Webster Building
B44	10 Post Office Square
B45	Ten Post Office Square
B46	Travelers Building
B47	140 Federal Street (United Shoe Machinery)
B48	Winthrop Square Building

PUBLIC BUILDINGSMap Number

3	City Hall
8	Court House
9	Custom House
11	Federal Building (J.F.K. Building)
20	North Station
24	Post Office & Federal Building
28	South Station
29	State House
30	State Office Building
31	State Service Building (Hurley Building)



ZONING

GENERAL BUSINESS DISTRICTS

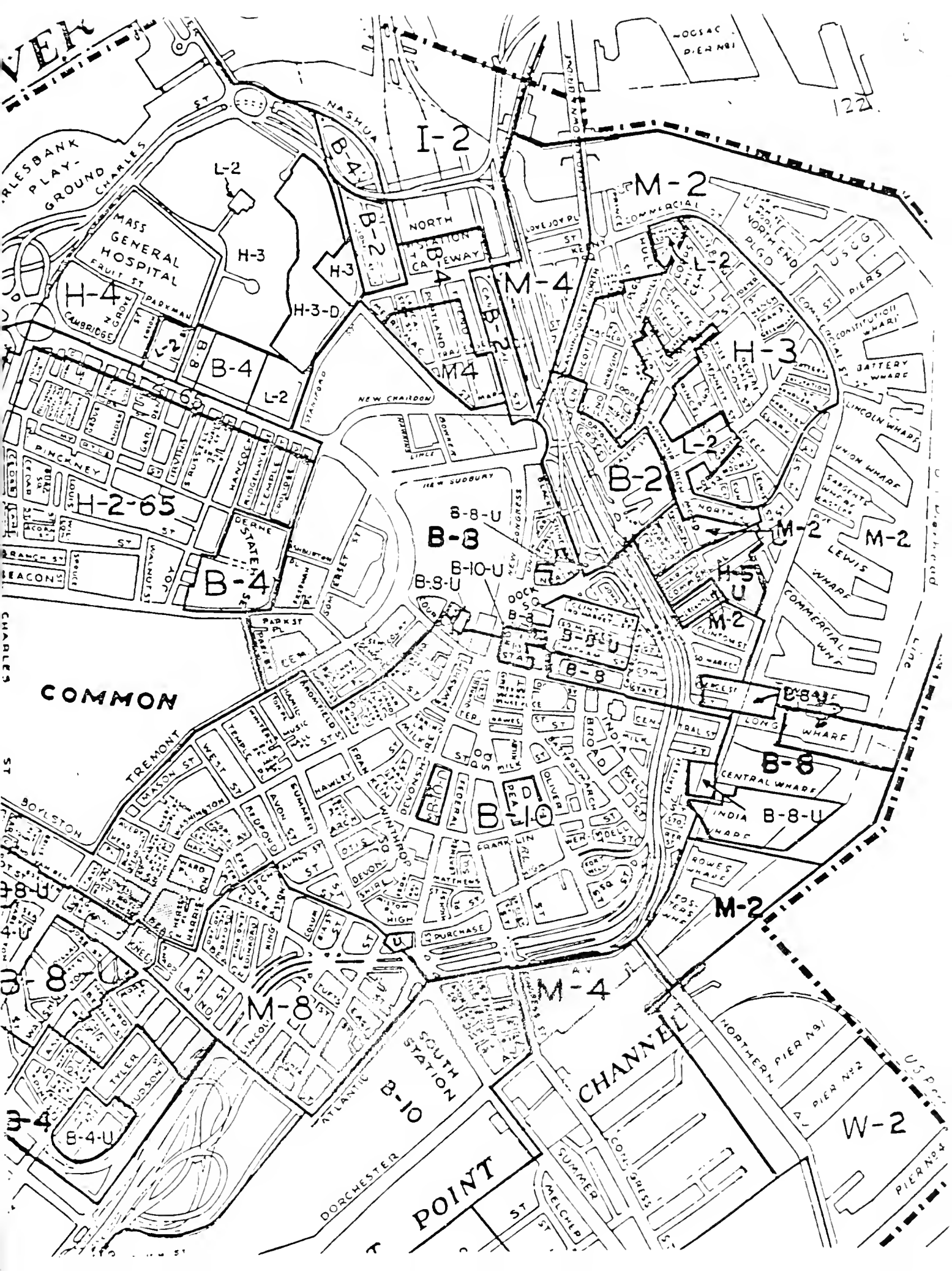
INDUSTRIAL DISTRICTS

TABLE 8: DIMENSIONAL REGULATIONS

DISTRICT	TYPE OF USE	LOT SIZE minimum sq. ft.	LOT AREA minimum sq. ft. for each add'l dwelling unit	LOT WIDTH minimum feet	FLOOR AREA RATIO maximum (1)	HEIGHT OF BUILDINGS maximum stories feet	USABLE OPEN SPACE minimum sq. ft. per dwelling unit	FRONT YARD minimum depth feet (14)	SIDE YARD minimum width feet	REAR YARD minimum depth feet	SETBACK OF PARAPET minimum distance from lot line	REAR YARD maximum occupancy accessory buildings
B-1	Any dwelling Other use	(3) none	(3) none	(3) none	1.0 1.0	3 3	(3) none	(3) none	(3) none(5)	(3) $\frac{L}{10 + \frac{L}{20}}$ (7)	$\frac{H + L'}{6}$ for all uses	-
B-2	Any dwelling Other use	(3) none	(3) none	(3) none	2.0 2.0	none none	(3) none	(3) none	(3) none(5)	(3) $\frac{L}{10 + \frac{L}{20}}$ (7)	$\frac{H + L'}{6}$ for all uses	-
B-4-70	Any dwelling Other use	none none	none none	none none	4.0 4.0	- 70(9) - 70(9)	50 none	(10) (10)	(3) none(5)	20 $\frac{L}{10 + \frac{L}{20}}$ (7)	(9) (9)	-
B-4	Any dwelling Other use	(3) none	(3) none	(3) none	4.0 4.0	none none	(3) none	(3) none	(3) none(5)	(3) $\frac{L}{10 + \frac{L}{20}}$ (7)	$\frac{H + L'}{6}$ for all uses	-
B-8-120	Any dwelling Other use	none none	none none	none none	8.0 8.0	- 120 - 120	50 none	(10) (10)	(3) none(5)	20 $\frac{L}{10 + \frac{L}{20}}$ (7)	none none	-
B-8	Any dwelling Other use	(3) none	(3) none	(3) none	8.0 8.0	none none (13) none none (13)	(3) none	(3) none	(3) none(5)	(3) $\frac{L}{10 + \frac{L}{20}}$ (7)	$\frac{H + L'}{7}$ for all uses	-
B-10-155	Any dwelling Other use	none none	none none	none none	10.0 10.0	- 155(12) - 155	50 none	(10) (10)	(3) none(5)	5 5	(12) none	-
B-10	Any dwelling Other use	(3) none	(3) none	(3) none	10.0 10.0	none none (13) none none (13)	(3) none	(3) none	(3) none(5)	(3) $\frac{L}{10 + \frac{L}{20}}$ (7)	$\frac{H + L'}{8}$ for all uses	-
M-1	Any use	none	none	none	1.0	2 1/2 35	none	20	(5)	20	$\frac{H + L'}{6}$	-
M-2	Any use	none	none	none	2.0	none	none	none	(5)	12	$\frac{H + L'}{6}$	-
M-4	Any use	none	none	none	4.0	none	none	none	(5)	12	$\frac{H + L'}{6}$	-
M-8	Any use	none	none	none	8.0	none	none	none	(5)	12	$\frac{H + L'}{7}$	-
I-2	Any use	none	none	none	2.0	none	none	none	(5)	12	$\frac{H + L'}{6}$	-
M-2	Any use	none	none	none	2.0	none	none	none	(5)	12	$\frac{H + L'}{6}$	-

Key L = Length of wall parallel (or within 45° of parallel) to lot line, measured parallel to lot line
H = Height of building above the height below which no setback is required
L' = Length of wall parallel (or within 45° of parallel) to lot line, measured parallel to lot line at greatest length above the height below which no setback is required

- See Section 15-4 for cases where the maximum floor area ratio may be exceeded
- No additional lot area for first 30 dwelling units
- See Section 13-4
- Ten feet plus one twentieth of the length of the wall parallel (or within 45° of parallel) to the side lot line. See further Section 19-4
- See Section 19-5
- See Section 20-4
- See Section 20-5
- See second paragraph of Section 18-2
- 70 feet maximum at parapet line facing a street (excluding a public alley). Height to top of roof may be 90 feet provided that for every foot of height over 70 feet, a setback of 6 inches is provided from the front parapet line. Mechanical equipment shall be set back from the front parapet line an additional one foot for every foot in height of such equipment
- 20 feet on east-west streets, none on north-south streets. A bay window, as defined in Section 2-1, may protrude into a front yard. See also Sections 18-1 and 16-2
- See Section 16-4
- See Section 16-5
- See Section 16-6 for height limits for buildings within 100 feet of streets that bound Boston Common and the Public Garden
- See also Section 18-2



COLDWELL BANKER COMMERCIAL REAL ESTATE SERVICES

INFORMATION SYSTEMSA. The Prospect Data Banks

The Prospect Data Banks are a listing of companies and properties indexed by the following variables:

1. Location
2. Square Footage
3. Standard Industrial Code (SIC)
4. Own vs. Lease Status
5. Lease Expiration Date (when applicable)
6. Rail Service, Industrial Park Location (For Industrial Space Users)
7. Previous Location

B. The Census Data Bank

The Census Data Banks contain demographic information from the 1970 and 1980 United States Census. This system covers every state in the nation. Information is available down to the census tract level. Included is information on:

1. Population
2. Age and Sex
3. Family Income
4. Rent Levels
5. Education
6. Households/Per Capita Income
7. Marital Status
8. Occupation

C. The Available Properties System

The Available Properties System is a listing of all available office space in the downtown areas of U.S. cities as well as all industrial properties metropolitan-wide.

D. The General Purpose Mailing Lists System

The General Purpose Mailing Lists System is a miscellaneous name and address list for general purpose mailings and the distribution of promotional materials. Among these lists are included the addresses of the Fortune 1000.

E. The Market Profile System

The Market Profile System is a statistical profile of (at present) 29 metropolitan markets nationwide. Each profile includes information on population, employment, taxes, real estate markets, as well as educational and cultural amenities.

F. Publications Available Through Coldwell Banker

1. The Office Vacancy Index of the United States

A quarterly report on the office vacancy rate in the downtown areas of U.S. cities. This is the most comprehensive and encompassing report of its type in the United States.

2. The Industrial Vacancy Index of the United States

A quarterly report on vacancies in large industrial facilities (100,000 square feet or more) for selected U.S. cities. This too is the most comprehensive and encompassing of its kind.

CHARLESTOWN
NAVY-YARD
C756
1982

CONSTITUTIONAL OFFICE PARK

BOSTON PUBLIC LIBRARY



3 9999 06550 922 4

